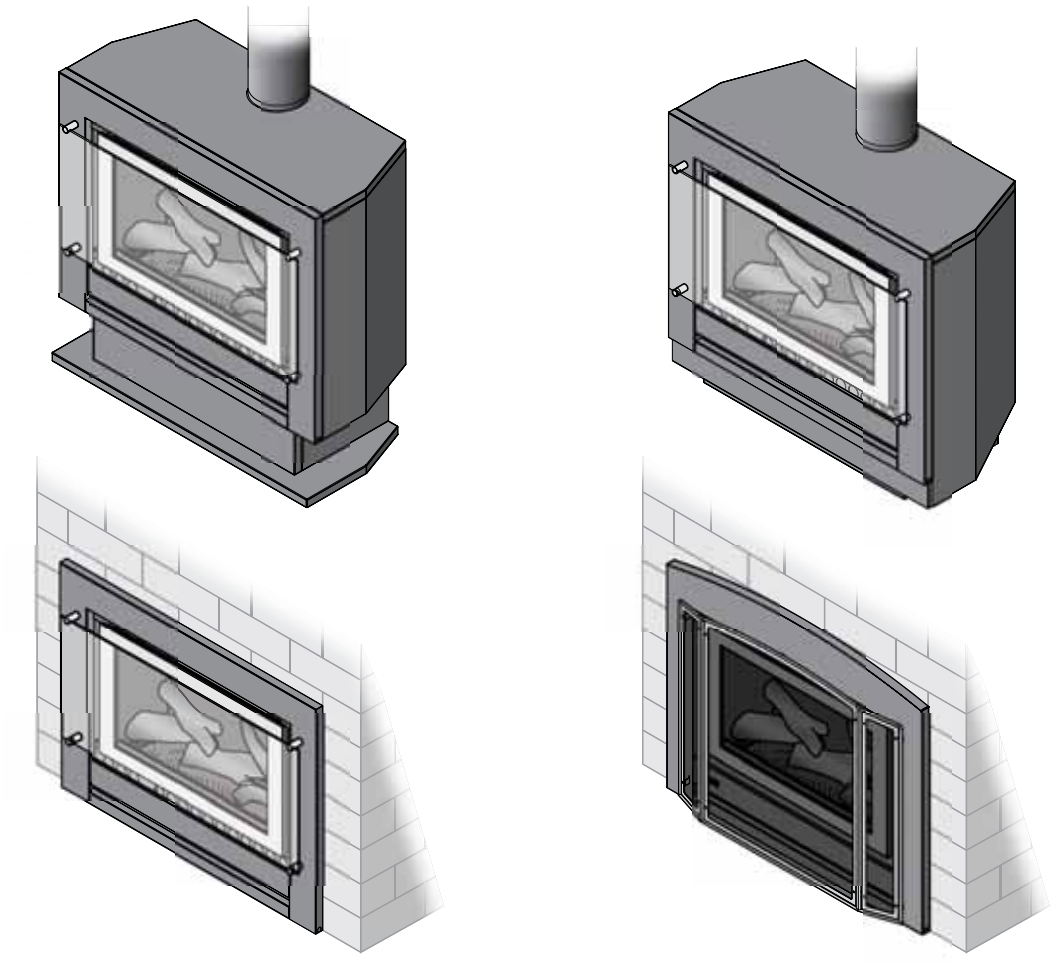
Rinnai

SAPPHIRE

Gas Log Flame Fire

Operation / Installation Manual

MODELS: RIB2310MN/A & RIB2310ML/A



This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 3000 & AS/NZ 5601
- Local Regulations and Municipal Building Codes

This appliance must be installed, serviced and repaired by an Authorised Person.

The Australian Gas Association
All Rinnai gas products are A.G.A. certified.

N10378

Congratulations on the purchase of your Rinnai Sapphire gas log flamefire.
We trust you will have many years of comfort and enjoyment from your appliance.

BEFORE PROCEEDING WITH THE OPERATION OR INSTALLATION OF YOUR NEW HEATER PLEASE READ THIS MANUAL THOROUGHLY AND GAIN A FULL UNDERSTANDING OF THE REQUIREMENTS, FEATURES AND OPERATION OF YOUR NEW APPLIANCE.

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BEFORE YOU START

INSTALLATION REQUIREMENTS

This heater must be installed by an authorised person. The installation must conform to local regulations.

The installation must also comply with the instructions supplied by Rinnai.

Service and removal must be carried out by an authorised person.

CERTIFICATION

The Rinnai Sapphire® has been certified by the Australian Gas Association.

The AGA Certification Number is shown on the appliance dataplate.

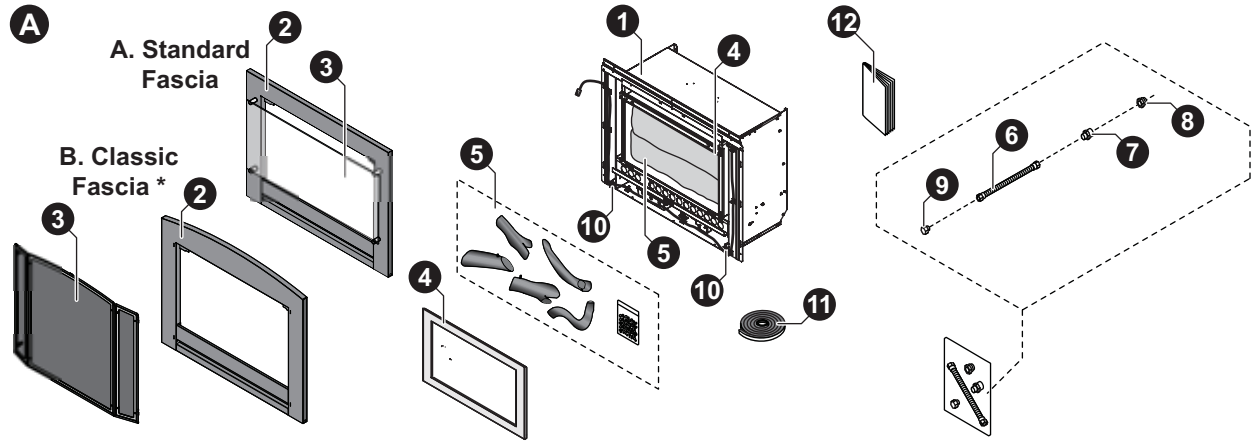
No parts or functions should be modified or permanently removed from the heater.

Please keep these instructions in a safe place for future reference.

CARTON CONTENTS / ITEM CHECKLIST

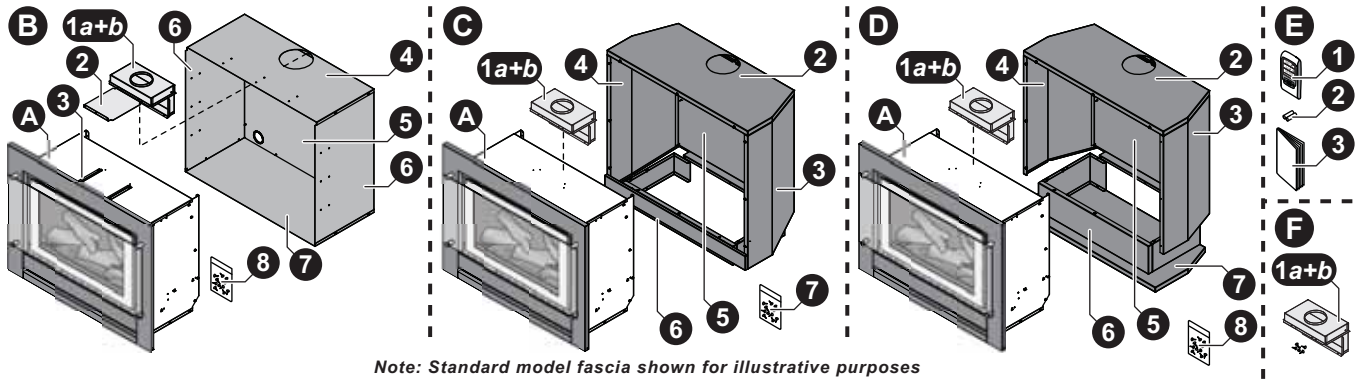
The components for Sapphire heater are supplied in separate cartons, the following tables list which components are in each carton. Ensure that the components listed for the installation method being installed are present before proceeding with the installation.

IMPORTANT **The Engine and Fascia are packed into two separate cartons and are required for all installation types. Masonry installations may require a flexiliner flue to be installed, refer to "MASONRY FLUE INSTALLATION" on page 30 for details.**



Component Descriptions * *The Classic fascia / Mesh dress guard is suitable for Masonry and Zero Clearance - Inbuilt Installation installations **ONLY!** It and can **NOT** be used on a Console or Plinth installation.*		Carton Contents	
		Engine	**Fascia**
A	**Engine and Fascia - Masonry Installations (x2 Cartons)**		
1	Rinnai Sapphire Engine.	●	
2	**A.** Fascia (Standard Model) / **B.** Fascia (Classic Model)*.		●
3	**A.** Glass dress guard (Standard Model) / **B.** Mesh dress guard (Classic Model)*.		●
4	Inner metal surround.		●
5	Artificial log set / burn media, Satchel burner granules (shipped inside engine).	●	
6	Semi rigid stainless steel gas pipe with 5/8" connections (x1).	●	
7	½" BSP - 5/8" UNF flared brass adaptors (x1).	●	
8	½" BSP Flared nut (x1).	●	
9	5/8" UNF Plug (x1).	●	
10	Fascia attachment screws (2 x 8g black, pre-fitted in tabs of heater engine).	●	
11	Adhesive backed foam sealing strip.	●	
12	Operation and Installation manual.	●	

BEFORE YOU START



Note: Standard model fascia shown for illustrative purposes

Component Descriptions	Carton Contents						
** The Classic fascia / Mesh dress guard is suitable for Masonry and Zero Clearance - Inbuilt Installation installations **ONLY!** It and can **NOT** be used on a Console or Plinth installation.*	Engine	Fascia	Zero Clearance Box	Console	Plinth	Remote Thermostat	Spigot Adaptor
B Zero Clearance - Inbuilt Installation (x3 Cartons)							
A See Engine and Fascia (Masonry Installations) contents on previous page.	●	●					
1 Two piece Spigot Adapter a Top Half and b Bottom Half.			●				
2 Spigot guide panel.			●				
3 Spigot guide rails (x2).			●				
4 Zero Clearance - Top panel.			●				
5 Zero Clearance - Rear panel.			●				
6 Zero Clearance - Left & Right side panels.			●				
7 Base panel.			●				
8 Packet assembly screws (x27), grommets (x2) and rivets (x2).			●				
C Console Installation - Freestanding Installation (x3 Cartons)							
A See Engine and Fascia (Masonry Installations) contents on previous page.	●	●					
1 Two piece Spigot Adapter a Top Half and b Bottom Half.				●			
2 Console Installation - Top panel.				●			
3 Console Installation - Left side panel.				●			
4 Console Installation - Right side panel.				●			
5 Console Installation - Rear panel.				●			
6 Console Installation - Pillar.				●			
7 Packet assembly screws 35 x 8g and 7 x M5.				●			
D Plinth Installation - Freestanding Installation (x3 Cartons)							
A See Engine and Fascia (Masonry Installations) contents on previous page.	●	●					
1 Two piece Spigot Adapter a Top Half and b Bottom Half.					●		
2 Plinth Installation - Top panel.					●		
3 Plinth Installation - Left side panel.					●		
4 Plinth Installation - Right side panel.					●		
5 Plinth Installation - Rear panel.					●		
6 Plinth Installation - Pillar assembly.					●		
7 Plinth Installation - Base panel.					●		
8 Packet assembly screws 35 x 8g (only 29 needed for installation) and 7 x M5.					●		
E Optional Wireless Remote / Thermostatic Control (x1 Carton)							
1 Wireless remote/thermostatic control with wall mount.						●	
2 AA batteries (x2).						●	
3 Operating Instruction.						●	
F Optional Two Piece Spigot Adapter (x1 Carton)							
1 Two piece Spigot Adapter a Top Half, b Bottom Half and assembly screws (x4)							●

INSTALLATION RECORD

INSTALLERS / GAS FITTERS DETAILS

Installers Name: _____

Company Name: _____

Company Address: _____

_____

_____

Company Contact Details

Telephone: _____

Mobile Phone: _____

Certificate of Compliance / Certification Number: _____

Authorised Persons - Licence Number: _____

Installers Signature: _____

Installation Date: _____

APPLIANCE DETAILS

Model Number: _____

Serial Number: _____

Installation Address: _____

_____

_____

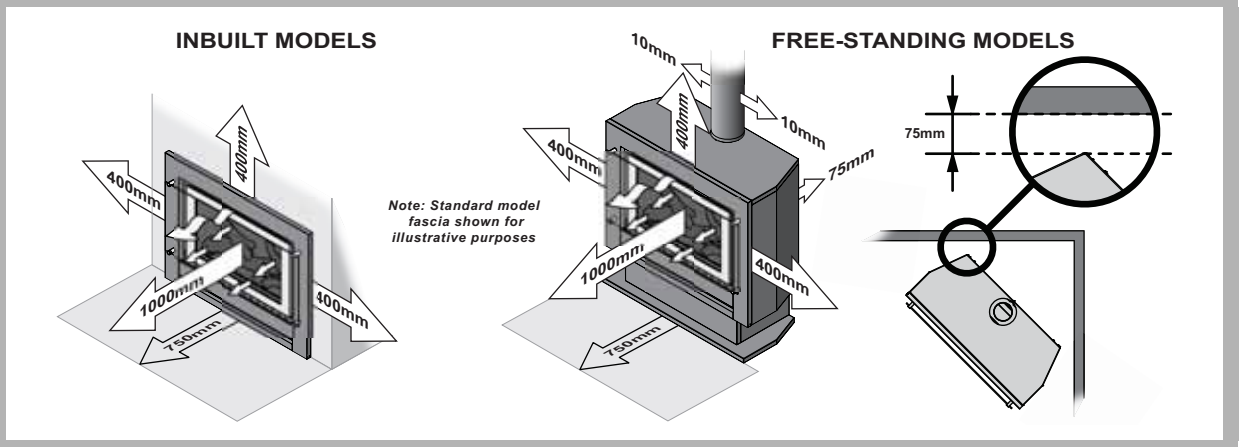
_____

THIS APPLIANCE MUST BE INSTALLED, SERVICED AND REPAIRED BY AN AUTHORISED PERSON.

SAFETY

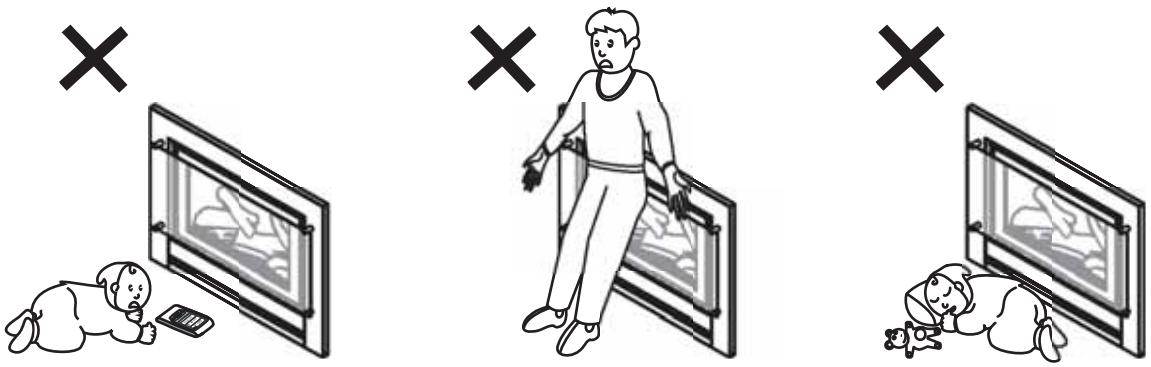
WARNING

- **Failure to comply with these instructions could result in a fire or explosion, which could cause serious injury, death or property damage.**
- **Improper installation, adjustments, service or maintenance can cause serious injury, death or property damage. Such work must be performed by an authorised person.**
- **The appliance must be installed in accordance with the local gas and electrical authority regulations.**
- **Flue terminal must always vent directly to outdoors.**
- **DO NOT extend the flue vertically or horizontally in ways other than prescribed in the appliance manufacturers' installation instructions.**
- **For information on gas consumption, see data plate on the appliance.**
- **This appliance must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining.**
- **WARNING: This heater MUST NOT be used if either of the glass panels are damaged.**
- **When considering installation ensure minimum clearances as follows are adhered to:**



- **Heat radiating from the front of this heater may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This effect may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat or similar protective sheet be placed in front of the appliance, extending at least 750 mm in front of the dress guard.**
- **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- **The appliance is not intended for use by young children or infirm persons without supervision.**
- **Young Children must be supervised when in the vicinity of this heater while it is in operation.**
- **The Dress Guard MUST be fitted to this appliance to reduce the risk injury from serious burns and no part of it should be permanently removed.**
- **For protection of young children or the infirm a secondary guard is required.**
- **If the supply cord is damaged or requires replacing, it must be replaced by the manufacturer or the manufacturer's agent or similarly qualified person in order to avoid a hazard.**
- **The heater must not be located immediately below a power socket outlet.**
- **DO NOT connect to an LPG Gas cylinder indoors.**
- **A dedicated 240 V earthed 10 Amp power point must be used with this appliance.**
- **DO NOT modify this appliance. Modifying from original specifications may create a dangerous situation and will void your warranty.**
- **Only the flue components specified by Rinnai must be used.**
- **Unpack the heater and check for damage. DO NOT INSTALL A DAMAGED HEATER. If the heater is damaged, contact your supplier for advice.**
- **Before installing the heater, check the label for the correct gas type (refer rating plate, inside the appliance).**
- **Refer to local gas authority for confirmation of the gas type if you are in doubt.**

SAFETY

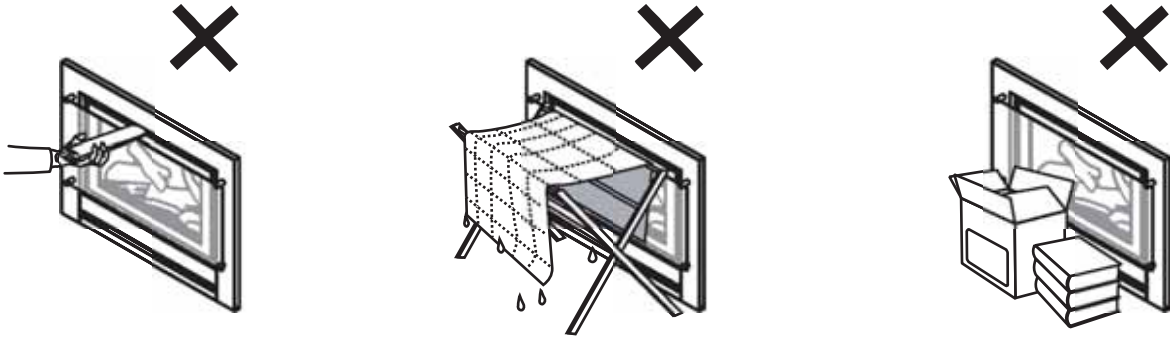


Note: Standard model fascia shown for illustrative purposes

The appliance is not intended for use by young children or infirm persons without supervision.Young children should always be supervised to ensure that they **DO NOT** play with the appliance.

DO NOT sit or lean against the heater.

DO NOT allow children or elderly persons to sleep in the warm air discharge from the heater.

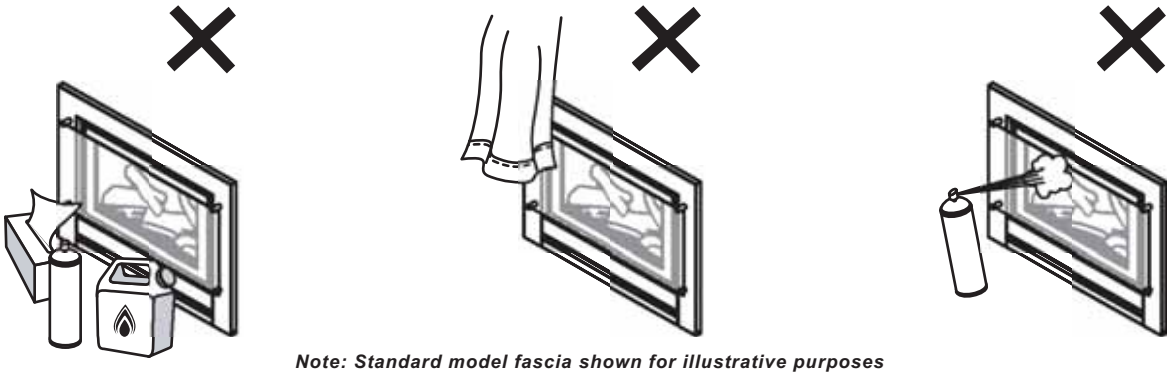


Note: Standard model fascia shown for illustrative purposes

DO NOT post or allow children to post articles into the louvres of the heater.

DO NOT cover or place articles on this heater.

DO NOT place articles in front of the louvres.



Note: Standard model fascia shown for illustrative purposes

DO NOT operate / install this heater in areas where painting is taking place, or in places such as hairdressing salons, where there may be fluff and dust, and where aerosols are used.

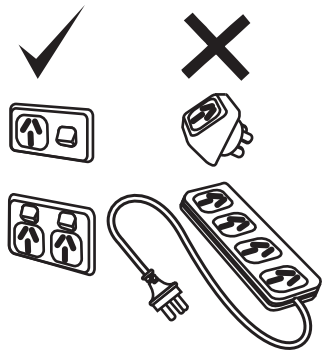
DO NOT place articles on or against this appliance.

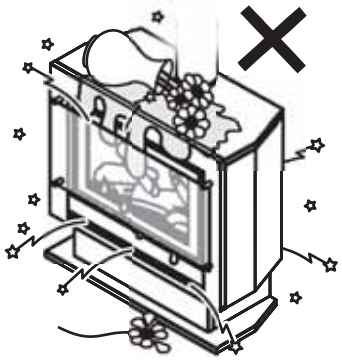
DO NOT use or store flammable materials near this appliance. Keep flammable materials away from heater.

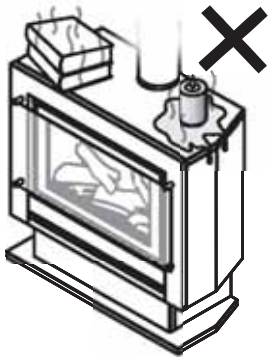
Combustible materials **MUST NOT** be placed where the heater could ignite them.

DO NOT spray aerosols in the vicinity of this appliance while it is in operation. Most aerosols contain flammable substances which can be a heater hazard if used near this heater when it is in use.

SAFETY







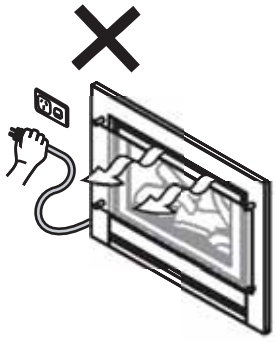
A dedicated 240V earthed 10 Amp power point must be used with this appliance.

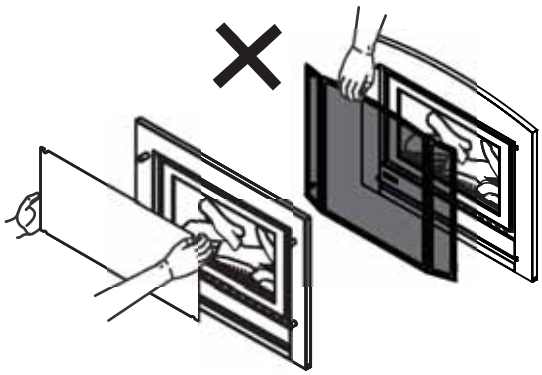
DO NOT use power boards or double adaptors to operate this appliance. The heater **MUST NOT** be located below a power socket-outlet.

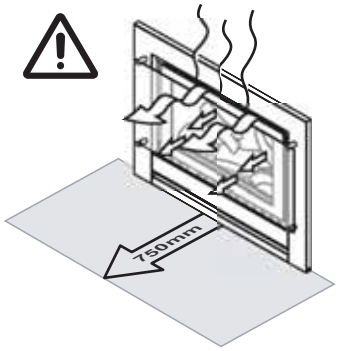
DO NOT place containers of liquid on top of the heater. Water spillage can cause extensive damage to the appliance and create an electrocution hazard.

DO NOT place articles on or against this appliance.

DO NOT CONNECT TO AN LPG GAS CYLINDER INDOORS.







Turn the heater 'OFF' after use.

DO NOT unplug the heater while it is in operation or while the fan is still cycling.

DO NOT remove the Dress Guard. The dress guard is fitted to this appliance to reduce the risk of fire or injury from burns and no part of it should be permanently removed. For protection of children or the infirm, a secondary guard is recommended.

Heat emanating from the front of the appliance may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This affect may be amplified if the air in the room contains cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat be placed in front of the appliance, extending at least 750 mm in front of the heater.

When the heater is operated for the first time or after long periods of non use a slight odour may be emitted, this is normal. However if odours persist switch 'OFF' the appliance and contact Rinnai.

SAFETY DEVICES

Over Heat Switches: When the heater gets too hot during operation (for example when air outlet louvres are blocked) these devices turn the gas off automatically and allow the heater to restart when cooled down.

Electrical Fuse: The electrical circuits are protected by a fuse.

Flame Failure Sensing System: This device automatically cuts off the gas supply to the heater in the event of a flame failure.

Power Failure: In the event of a power failure or power cut, the gas valves will automatically close.

ABOUT YOUR HEATER

GENERAL DESCRIPTION

Your Sapphire is a burning log effect, gas space heating appliance with natural draft combustion system, intended for use with Natural Gas, Propane and ULPG. The Burning log effect is achieved using one single main burner with strategically placed, 'life like', imitation logs and granules. Temperature control is achieved by pressing the up or down marked arrows on the manual control switch or via a cordless wall mounted remote control thermostat / timer.

This heater has an electronic ignition with intermittent pilot. The pilot is only on when the heater is in operation.

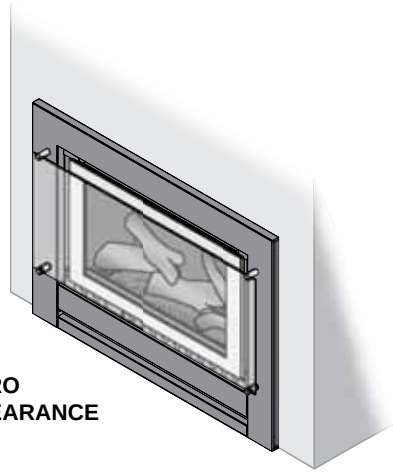
Burner, logs and granules are contained in a glass fronted, sealed burner box.

Combustion air is drawn from the room. Combustion product is exhausted via the flue discharge vent when installed in a masonry chimney or when installed in a zero clearance box or as a stand alone unit through a 100mmØ x 150mmØ twin skinned flue to the outside of the house.

This appliance is modular and primarily consists of an 'Engine' that is utilized in any of the 3 configuration types as listed below.

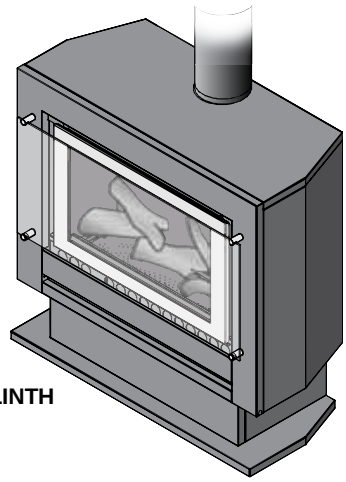
1. ***Fireplace / Masonry installation - Engine:***
   The appliance is directly mounted into an existing masonry fire place or a non-combustible/masonry enclosure that has a chimney. When installed correctly the appliance is a flush to wall mount.
2. ***Zero Clearance installation:***
   The Appliance is fitted within a sheet metal Zero Clearance Box Assembly that has been installed into a wall or other suitable structure. Materials need not be non-combustible. When installed correctly the appliance is a flush to wall mount.
3. ***Freestanding Plinth or Console appliance:***
   The appliance is housed in a decorative fabricated sheet metal box that is intended to be freestanding and not inbuilt.

MASONRY

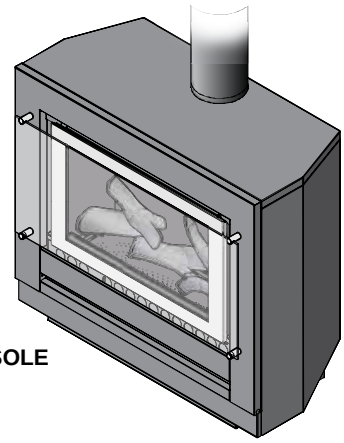


ZERO CLEARANCE

Note: Standard model fascia shown for illustrative purposes



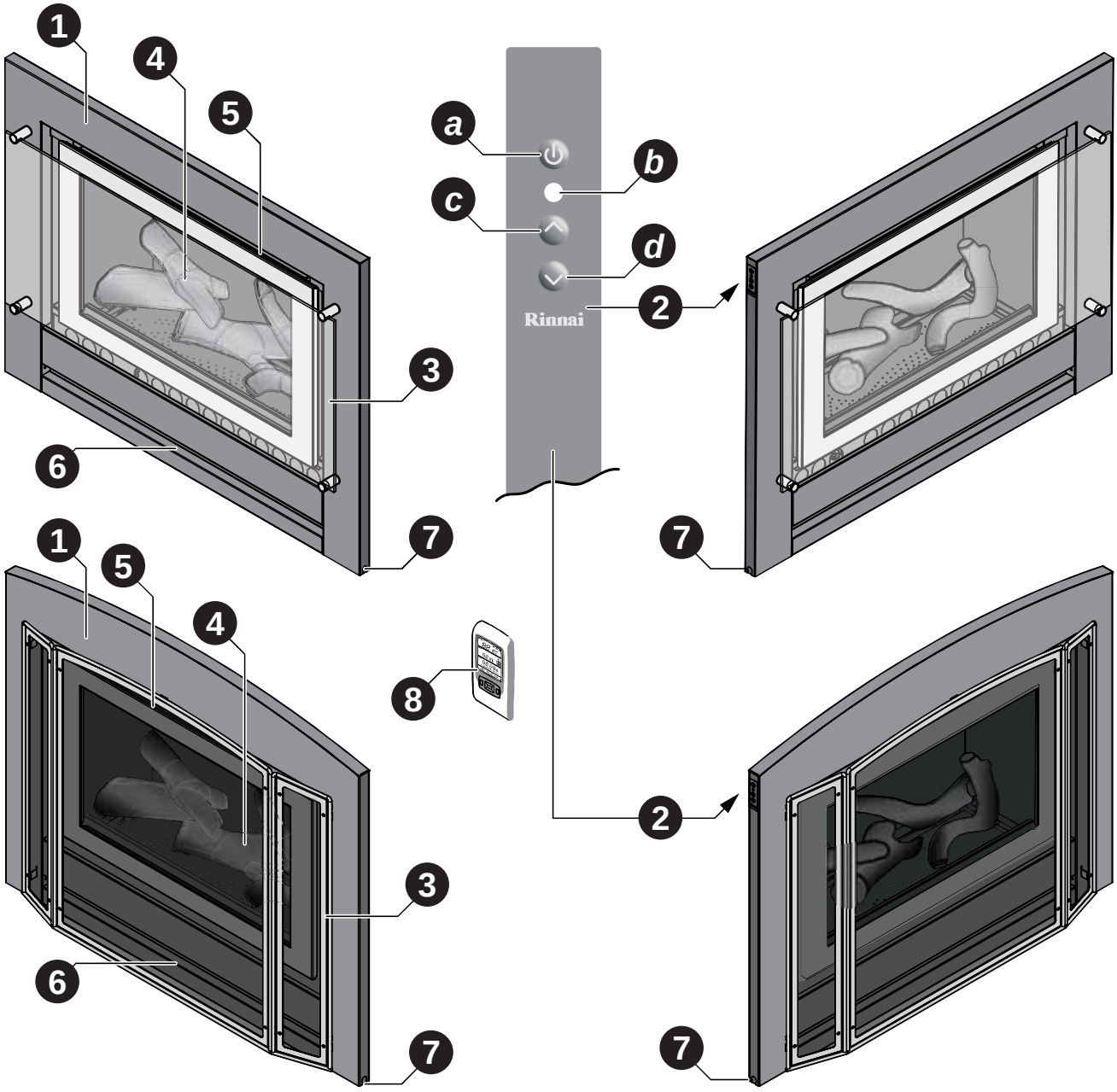
PLINTH



CONSOLE

ABOUT YOUR HEATER

DESIGN FEATURES



1. Rinnai Sapphire Heater
2. Push button control panel
   - *a* ON / OFF (Standby) button
   - *b* Power / operation indicator
   - *c* Flame Up button
   - *d* Flame Down button
3. Glass dress guard (standard model) / Mesh dress guard (classic model)
4. Flame window - artificial log set and burn media
5. Warm air discharge vent
6. Return air vent
7. Alternative power cable outlet location on front panel can be left or right handed
8. Optional Radio Frequency (RF) combination remote / thermostatic control with wall mount.

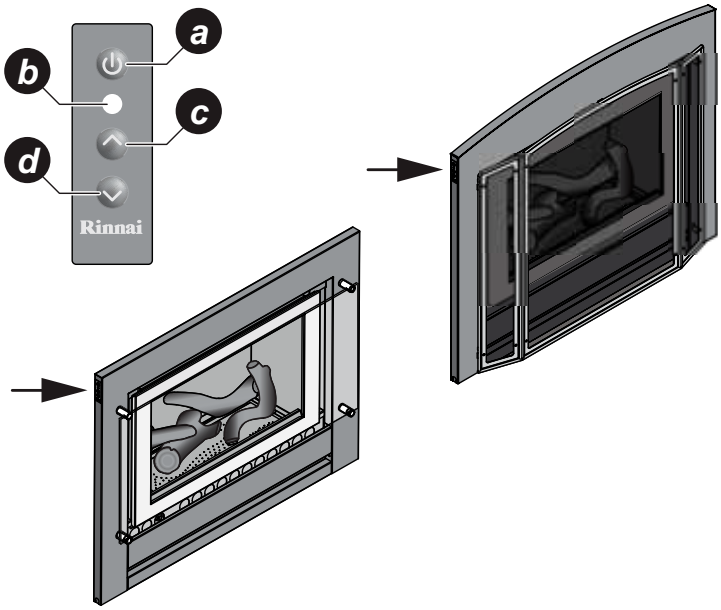
CONTROL PANEL OPERATION

TO TURN YOUR HEATER ON

BEFORE PROCEEDING ENSURE THE GAS AND ELECTRICITY ARE TURNED ON.

When the heater is in the OFF condition (the power supply connected and switched ON but the heater turned OFF) the Power Indicator will be extinguished, this is normal.

The 'Push Button Control Panel' is located at the top left edge of the heater.



Step 1. Press 'ON'/'OFF' button **a** once. The electronic ignition sparker will be able to be heard.

Step 2. The electronic ignition stops when the pilot flame has been established, the main burner then ignites off the pilot and is automatically preset to Stage 7 - High Flame. The blue LED Power Indicator, **b** will be constantly illuminated indicating heater is in operation.

Step 3. Flame height may be adjusted after 1 minute of operation. To change the burner and fan settings press **c** to increase flame height and **d** to decrease flame height.

FLAME HEIGHT & FAN SPEED SETTINGS

The relationship between the flame height and fan speed are preset and can not be independently adjusted.

FLAME HEIGHT	1	2	3	4	5	6	7
FAN SPEED	HIGH	LOW	LOW	LOW	HIGH	HIGH	HIGH

TO TURN YOUR HEATER OFF

When the heater is in the OFF/STANDBY condition (power supply connected and switched ON) the blue LED Power Indicator will be extinguished. This is normal.

To turn the heater 'OFF' press the 'ON'/'OFF' Button **a** once. The blue LED Power Indicator **b**, will extinguish to indicate that the appliance has returned to the in OFF condition.

INTERRUPTION TO ELECTRICITY OR GAS SUPPLY DURING OPERATION

Interruption to the power or gas supply will turn your heater off. Restart will be required This is a safety feature designed to ensure that un-attended starts do not occur.

RESTART PROCEDURE AFTER INTERRUPTION TO ELECTRICITY SUPPLY

To restart your heater once power has been restored follow the steps for "TO TURN YOUR HEATER ON" above.

RESTART PROCEDURE AFTER INTERRUPTION TO GAS SUPPLY

The instant gas supply is interrupted the heater will attempt re-ignition for a period of 60 seconds.

If the heater has not re-lit after 60 seconds the gas control will go to 'Gas Lock-out'. The convection fan will remain on for 4 minutes to cool the appliance.

To restart your heater once gas has been restored:

Step 1. Ensure gas supply has been re-established to heater.

Step 2. To re-set the gas control turn 'OFF' the heater by pressing 'ON/OFF' button **a** once.

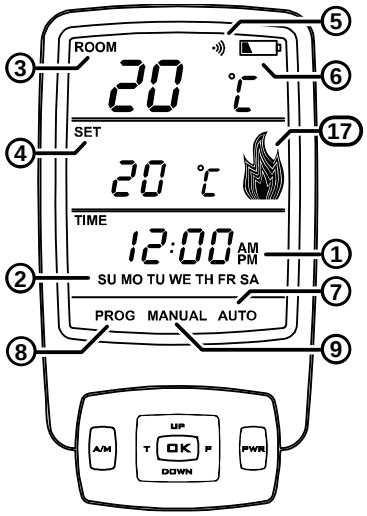
Step 3. In rapid succession Press button **a**, 3 times. (Turn 'ON', then 'OFF', then 'ON' again), within a 5 second period.

REMOTE / THERMOSTATIC CONTROLLED OPERATION

For further enhanced comfort and convenience the Sapphire heater can be both remotely and thermostatically controlled through the use of a wireless wall mountable controller / thermostat.

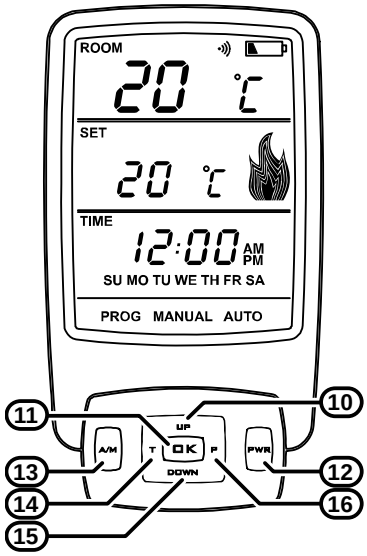
The wireless controller / thermostat is an optional extra available through your Rinnai stockist.

DISPLAY LAYOUT & FEATURES



①	Time of day with **'AM'** or **'PM'** display	Displays time of the day in hours and minutes, 'AM' or 'PM'. The time is displayed when the thermostat is 'ON' or 'OFF'.
②	Day of the week	Displays the current day of the week. The day is displayed when the thermostat is 'ON' or 'OFF'.
③	Current Room temperature display	Displays the current temperature. The temperature range is 7°C - 32°C.
④	Setting Temperature with **'SET'** display	When the thermostat is 'ON', the programmed (set) temperature will be displayed.
⑤	Transmit indicator	Indicates that the thermostat is transmitting to the receiver, the symbol will appear on the LCD for 1 sec.
⑥	Battery Low indicator	Indicates when the battery power is below an acceptable level.
⑦	Automatic mode indicator	Indicates if the thermostat is in automatic mode.
⑧	Program mode indicator	Indicates that the thermostat is in programming mode.
⑨	Manual mode indicator	Indicates if the thermostat is in manual mode.

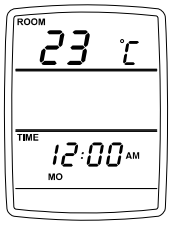
BUTTON LAYOUT & FEATURES



⑩	Setting **'UP'** Button	Increase hours, minutes, day or temperature.
⑪	**'OK'** Button	Accepts the current function and advances to the next function.
⑫	**'PWR'** (Power) Button	Switches the thermostat 'ON' and 'OFF'. To turn 'ON' press and release the **'PWR'** and **'OK'** Buttons at the same time this will turn the thermostat 'ON' to the most recently programmed working mode.
⑬	**'A/M'** Button	Toggles between automatic, manual and flame mode.
⑭	**'T'** (Time) Button	Initiates time and day of the week programming (must press and hold for 2 or more seconds when the thermostat is 'OFF').
⑮	Setting **'DOWN'** Button	Decrease hours, minutes, day or temperature.
⑯	**'P'** (Program) Button	Initiates the programming mode (must press and hold for 2 or more seconds when the thermostat is 'OFF').
⑰	Flame Indicator	Indicates the flame setting. The Flame symbol graphically indicates which of the 7 graduated settings between Low and High flame when the burner is on. In AUTO or MANUAL temperature mode, if the burner is OFF due to room temperature being reached the symbol will modulate UP and DOWN. This is to indicate that the unit is still ON even though there are no flames visible in the appliance.

REMOTE CONTROLLER - BATTERY INSTALLATION

Carefully remove the battery compartment cover panel from the rear of your controller hand-set and insert the two AA batteries supplied ensuring that '+' and '-' polarity is correct. After installing the batteries your remote control will display an 'Initial Set-up Screen' with the current room temperature in °C, a default time setting of 12:00 AM and the default day of the week set to **'MO'** - Monday.



NOTE **When batteries are changed all settings other than synchronisation are lost and the controller will revert back to the 'Initial set -up screen'.**

REMOTE / THERMOSTATIC CONTROLLED OPERATION

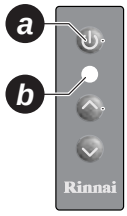
REMOTE CONTROLLER - SYNCHRONISATION.

NOTE

Before proceeding with synchronisation ensure that the gas and electricity are connected. Synchronisation must be carried out when a new controller has been purchased. Two controllers CAN NOT be used at the same time!

The heater will not respond the controller until synchronisation has been carried out.

Synchronisation of Controller & The Heater



Step 1). Turn the power off at the power point for a minimum of 30 seconds, synchronisation will not be possible unless the minimum 30 seconds has been observed.

Step 2). Ensure the remote control is turned OFF, to turn OFF press and release the 'PWR' button once.

Step 3). Turn the power ON at the power point, the blue power operation indicator **b** on the push button control panel will flash once. The controller can now be synchronised with the heater.

NOTE

Synchronisation MUST BE performed within 30 seconds of the power being turned ON, if more than 30 seconds has elapsed repeat steps 1 through 3.

Step 4). On the controller in quick succession press the following sequence of buttons: **'P' > 'T' > 'T' > 'UP'**
The LCD display will show 'L/C' (Learn Code) for 2 seconds then return to the normal 'OFF' state display. The blue power operation indicator **b** on the push button control panel will flash once to indicate that synchronisation has been accepted.

To restore factory default settings

With the thermostat 'OFF', press the following sequence of buttons **'P' > 'T' > 'T' > 'DOWN'.**

REMOTE CONTROLLER - MANUAL OPERATION

Turning 'ON'

Step 1). Press 'ON'/'OFF' button of the Push Button Control Panel **a** once the Power Indicator LED **b**, will illuminate blue.

Step 2). Press both the **'OK'** and **'PWR'** buttons on the controller at the same time. Operational control is now transferred to the controller, the heater operation is then dependant on the controller mode as follows:

In Manual Mode - Unless the set temperature is above that of the room temperature the heater will not ignite and the power Indicator LED **b** will turn red to indicate that the heater is in Controller Standby mode. Raising the set temperature above that of the room temperature will start heater operation and the Power Indicator LED **b**, will change from red to blue.

Turning 'OFF'

Step 1). To place heater into controller standby press the **'PWR'** button once. The heater will go into 'Standby' mode and the power Indicator LED **b** will turn red.

Step 2). To turn the heater 'OFF' press the 'ON'/'OFF' Button **a** twice. The Power Indicator LED **b**, will be extinguished to indicate that the appliance has returned to the OFF condition.

Changing the temperature

The Sapphire has temperature increments of 1° which can be changed using the **'UP'** and **'DOWN'** buttons.

The temperature control range is 7 - 32°C

Change between Celsius - °C and Fahrenheit - °F

The thermostat temperature display can be set to °C or °F. The default is °C.

With the controller 'OFF', press the following sequence of buttons: **'P' > 'T' > 'T' 'A/M'** to toggle between °C or °F.

Change between manual, automatic and flame modes

Press and release the **'A/M'** button.

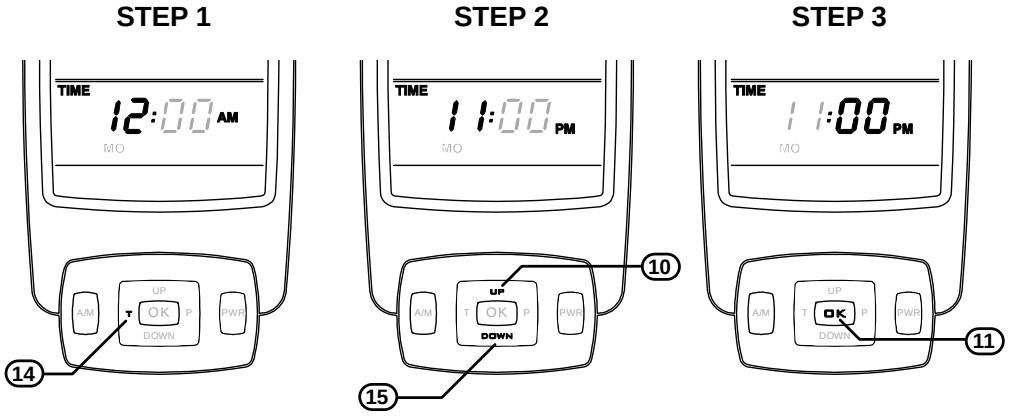
The unit first lights the pilot and then after a short period switches to the 'HIGH' flame setting.

To turn 'OFF' press and release the **'PWR'** button once.

REMOTE / THERMOSTATIC CONTROLLED OPERATION

REMOTE CONTROLLER - AUTOMATIC OPERATION

Setting the Current Time and Day of the Week

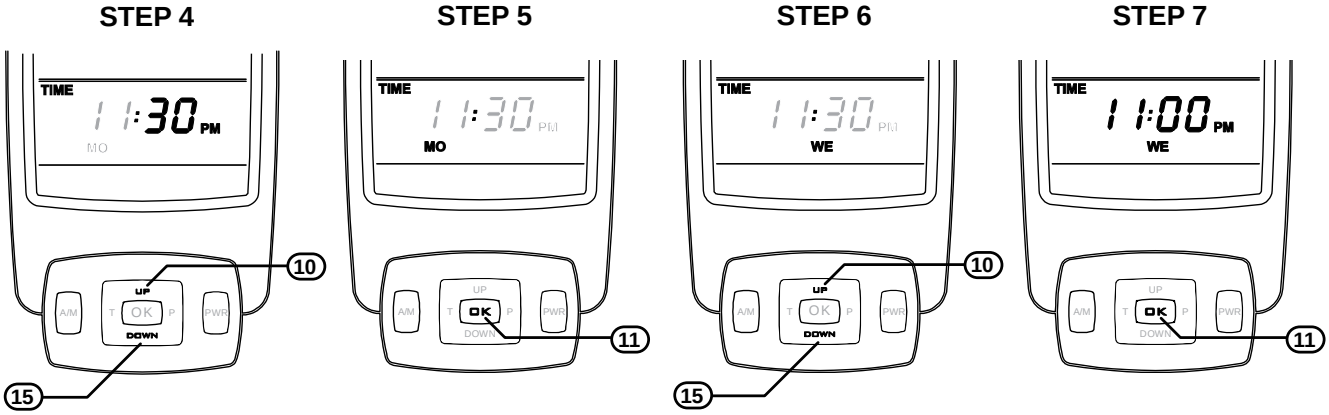


Step 1. With the controller 'OFF', press and hold the **'T'** button (14) for approximately 2 seconds. **'TIME'**, **'HOUR'** and **'AM or PM'** will flash.

> **If no buttons are pressed within 10 seconds the display will revert back to 'Initial Set-Up Screen' retaining the last entered setting.**

Step 2. To select the hour push the **'UP**' button (10) or **'DOWN'** button (15) until the desired hour is chosen, note that AM or PM is chosen by cycling through the 12 hour range.

Step 3. Press the **'OK'** button (11) to enter the selected hour and AM or PM. **'TIME'** + '**MINUTES'** + **'AM or PM'** will flash.



Step 4. To select the minutes push the **'UP**' button (10) or **'DOWN'** button (15) until the desired minutes are chosen.

Step 5. Press the **'OK'** button (11) to enter selected minutes, One of the days **SU, MO, TU, WE, TH, FR or SA** will flash.

Step 6. To select the hour push the **'UP**' button (10) or **'DOWN'** button (15) until the desired day is chosen.

Step 7. Press the **'OK'** button (11) to enter the selected day and to complete time and day setup.

To adjust time for Daylight Saving time

To adjust time or to adjust for daylight savings follow Steps 1 and 2 then press **'OK'** button (11), three times to keep the minutes and the current day.

> **When changing batteries all settings will be lost and the controller will revert back to the 'Initial setup screen'. Re-setting of time, date and programming will be necessary.**

REMOTE / THERMOSTATIC CONTROLLED OPERATION

WIRELESS CONTROLLER / THERMOSTAT

The wireless controller is designed to be wall mounted on a bracket, (bracket supplied with the controller), within 20m of the heater.

The controller houses the thermostat which senses room temperature and communicates back to the Sapphire heater via Radio Frequency.

The ideal position for the controller is:

- Away from possible drafts in the room.
- Away from direct sunlight.
- Suitable distance away from the heater (not exceeding 20 metres).
- Ideally 1.5 m from the floor (approximately at chest height).

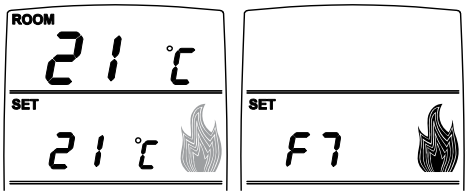
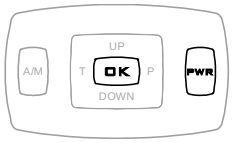
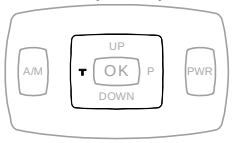
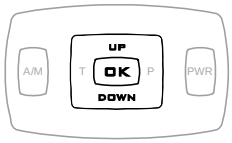
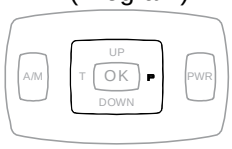
Controller Specifications

Battery:
2 x AA batteries.

Battery Life:
Approximately 12 months.

Dimensions:
Height: 140 mm, Width: 80 mm, Depth: 20 mm.

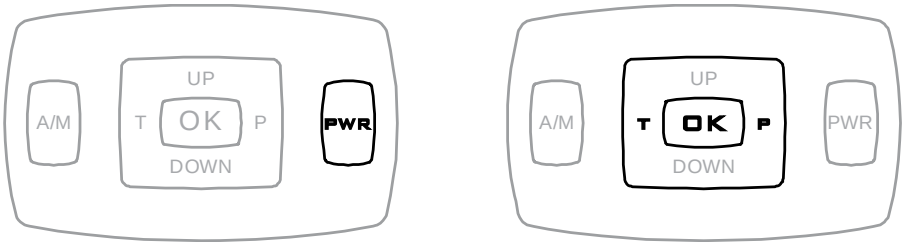
Additional information about Remote Thermostat Control Buttons

Transmit Indicator	Indicates the thermostat is transmitting to the receiver, the symbol with appear on the LCD for 1 second.
Battery Indicator	This symbol will flash when batteries need replacing. The thermostat will remain functional for approximately 5 days before shutting 'off'. Re-programming of the controller will be required after battery replacement.
Temperature Display	Displays current temperature. °C is the default but °F is available. The temperature range is 7°C - 32°C (45°F - 90°F).
Room Indicator or Set Indicator 	When the thermostat is 'ON' the programmed (set) temperature and the room temperature will be displayed. When the Flame mode is 'ON' the Flame setting F7 to F1 will be displayed.
PWR + OK 	Switches the thermostat 'ON' and 'OFF'. If thermostat is 'OFF', pressing and releasing the **'PWR'** + **'OK'** button will turn the thermostat on to the most recently selected working mode.
T (Time) 	Initiates the time and day of week programming, press and hold for 2 seconds.
UP, DOWN & OK 	**'UP'** increase hours, minutes, day or temperature **'OK'**, accepts the current function and advances to the next function, **'DOWN',** decrease hours, minutes, day or temperature.
P (Program) 	Initiates the programming mode, press and hold for 2 seconds.

REMOTE / THERMOSTATIC CONTROLLED OPERATION

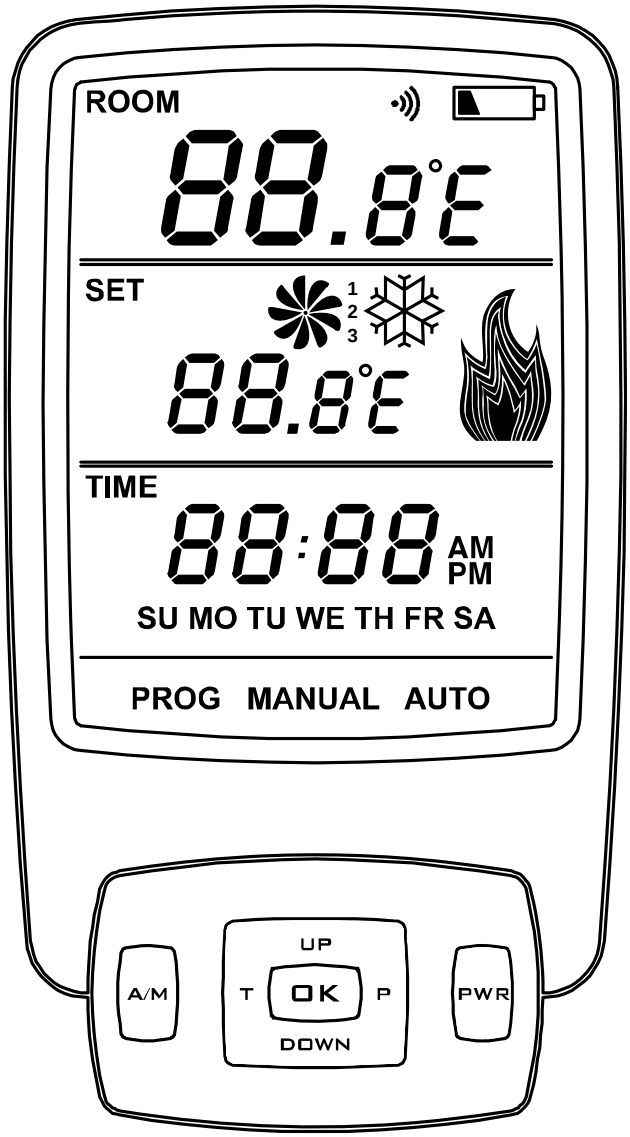
Additional information about Remote Thermostat Control Operation

Character Diagnostic Check. To check the display characters on the remote control turn the controller 'off' by pressing the **'PWR'** button then press **P** - **T** - **T** - **OK** in rapid succession.



The remote will then commence automatically cycling through all the display characters, finally displaying the full screen as shown below.

This process takes approximately 20 seconds and does not affect any programming.



If any of the characters are not displayed contact your Rinnai stockist for a replacement controller.

The Fan and Snowflake symbols displayed are not utilized in the operation of the Sapphire heater.

REMOTE / THERMOSTATIC CONTROLLED OPERATION

TO TURN YOUR HEATER ON WITH REMOTE / THERMOSTATIC CONTROL

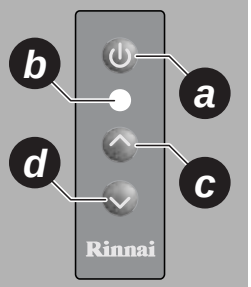
NOTE

BEFORE PROCEEDING ENSURE THE GAS AND ELECTRICITY ARE TURNED ON.

Before remote / thermostatic control can be used the heater must be taken out of the OFF/STANDBY condition (supply connected and switched ON but the heater turned OFF), do this as follows:

Press 'ON'/'OFF' button (a) once the electronic ignition sparker will be able to be heard.

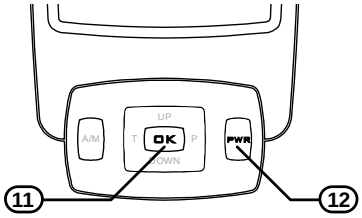
Step 1. The electronic ignition stops when the pilot flame has been established. The main burner then ignites off the pilot. Once the main burner has ignited the heater can the be operated by remote / thermostatic control.



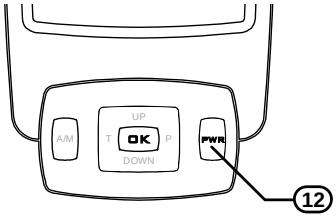
MODES OF OPERATION

To Turn Remote 'ON' or 'OFF'

STEP 1



STEP 2



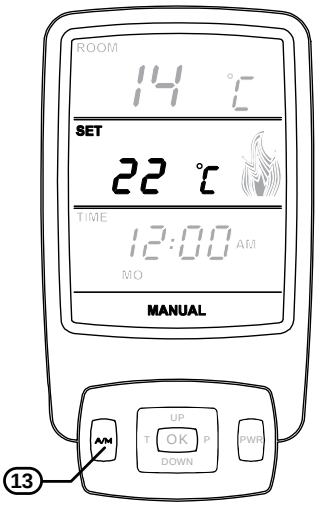
Step 1. To turn 'ON' - press and release the **'OK'** button (11) and **'PWR'** button (12) at the same time. The display will now include the setting temperature and the mode of operation.

Step 2. To turn 'OFF' - press the 'PWR' button (12) only.

Manual Temperature Mode

- Temperature can be set at any level.
- Time and day of week does not need to be programmed to operate.

STEP 1



STEP 2

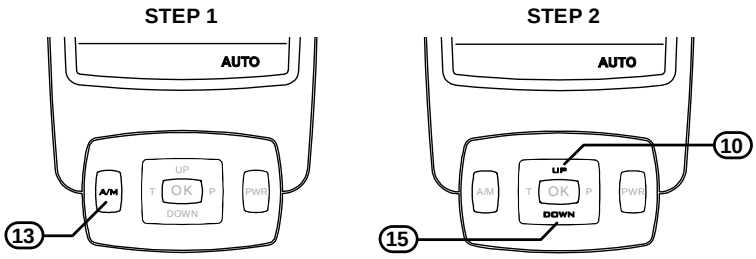
Step 1. With the controller turned 'ON', press and release the '**A/M'** button (13) until the word '**MANUAL'** appears on the LCD.

Step 2. Press press the **'UP**' button (10) or **'DOWN'** button (15) to increase or decrease the temperature in increments of 1°C.

REMOTE / THERMOSTATIC CONTROLLED OPERATION

Automatic Timer Mode

- In automatic timer mode temperature is regulated to the programmed level and time.
- Time and day of week **MUST BE** set.



Step 1. With the controller turned 'ON', press and release the '**A/M'** button (13) until the word '**AUTO'** appears on the LCD.

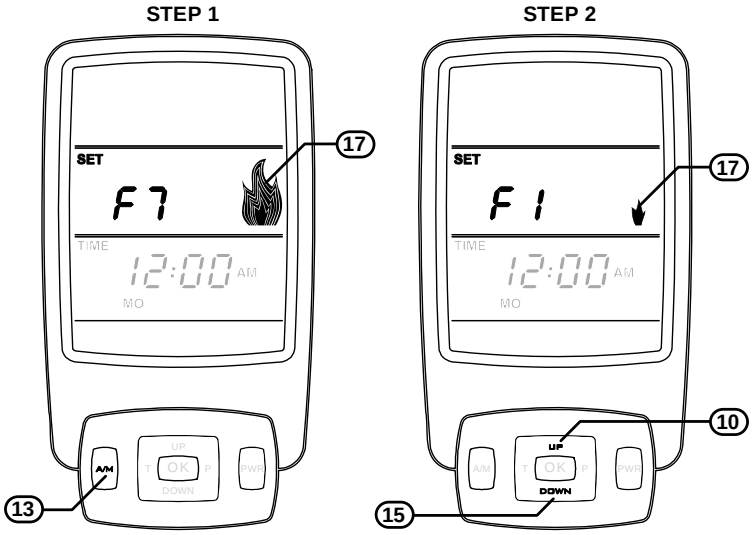
Step 2. At any time press the **'UP**' button (10) or **'DOWN'** button (15) to increase or decrease the temperature in increments of 1°C.

Flame Mode

- Temperature control is over ridden and the flame size can be set to any setting from F7 highest to F1 lowest.

NOTE **When the fire first ignites it remains on highest flame for the first 60 seconds before changing to the selected flame height.**

- Time and day of week does not need to be programmed.



Step 1. With the controller turned 'ON', press and release the '**A/M'** button (13) until the letter **'*F*'** with a number and the flame symbol (17) appear on the LCD panel.

Step 2. Press the **'UP**' button (10) or **'DOWN'** button (15) to increase or decrease the flame height.

NOTE **The fan speed automatically adjusts to the corresponding flame height. It is not able to be selected by the operator. See the flame table below for flame height to fan speed relationship.**

Flame Height	1	2	3	4	5	6	7
Fan Speed	HIGH	LOW	LOW	LOW	HIGH	HIGH	HIGH

Manually Overriding The Set Program

At any time, the temperature or fan speed may be adjusted 'UP' or 'DOWN' similarly to operating in "Manual Temperature Mode" on page 15.

NOTE **However, whenever the thermostat changes to a new time period, the temperature will be set automatically according to that period's setting.**

REMOTE / THERMOSTATIC CONTROLLED OPERATION

Flame Height And Fan Speed

The flame height and fan speed are not individually adjustable. Flame height and fan speeds are selected by the microprocessor according to the difference between the set temperature and the ambient temperature of the room.

The fan speed automatically adjusts to the corresponding flame height. The fan speed is not able to be selected by the operator. When the heater is operated in 'Manual Temperature Mode' the flame height is automatically selected by the microprocessor to achieve and maintain the 'set' temperature. As an example, if the room is much colder than the 'set' temperature, the flame height and corresponding fan speed will be high. As the room heats up and gets close to the 'set' temperature the flame height and corresponding fan speed will revert to lower settings. When the heater is operated in 'Flame Mode' the flame height is set by the operator.

Flashing Small Flame Symbol 'ON'

The small flashing flame symbol (17) on the RF controller display indicates the room temperature is within 0.5°C of set temperature.

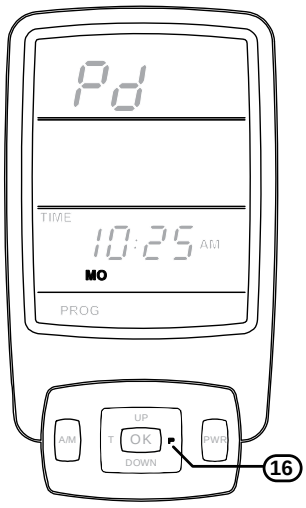
Program Modes

The appliance can be programmed to operate during four separate periods in one day, resulting in a possible 28 operating periods per week. A weekday program can be set so the program is used Monday to Friday. Similarly, a weekend program can be set for Saturday to Sunday. The entire week can also have the same program.

Factory default settings	If you do nothing to change the programming the following default settings would be available if you set it to automatic mode.			
	Time Period	Start Time	Temperature °C	Suggested Time Period Settings
	Period 1	**6:00 am**	**20°C**	**- Morning**
	Period 2	**8:30 am**	**15°C**	**- Day time**
	Period 3	**5:00 pm**	**21°C**	**- Evening**
	Period 4	**10.30 pm**	**15°C**	**- Night time**
To revert back to the default settings once you have reset the periods, in rapid succession press the following sequence of buttons 'P' - 'T' - 'T' - 'DOWN'.				

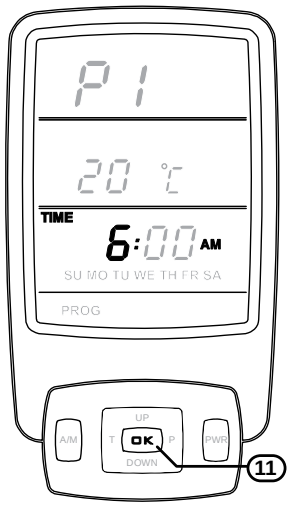
PROGRAMMING OF PROGRAM MODES

STEP 1



STEP 2

STEP 3



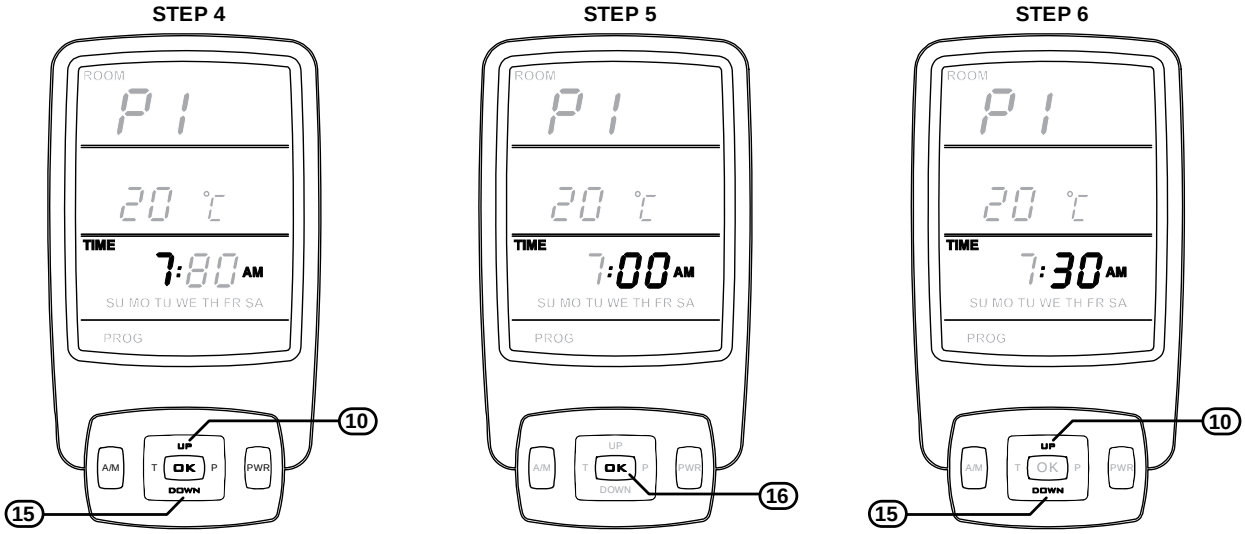
Step 1. With the controller 'OFF', press and hold the **'P'** button (16) for approximately 2 seconds. The LCD will display **'PROG'. '*Pd*'** and the current time and the day **'MO'** will flash.

Step 2. To select the day range press the **'UP**' button (10) or **'DOWN'** button (15) until the desired day range has been chosen the day ranges are as follows:

MO➔ TU➔ WE➔ TH➔ FR➔ MO TU WE TH FR➔ SA➔ SU➔ SU - SA➔ SU MO TU WE TH FR SA

NOTE **Holding the 'UP' or 'DOWN' buttons for more than 2 seconds will scroll through the day ranges.**

REMOTE / THERMOSTATIC CONTROLLED OPERATION

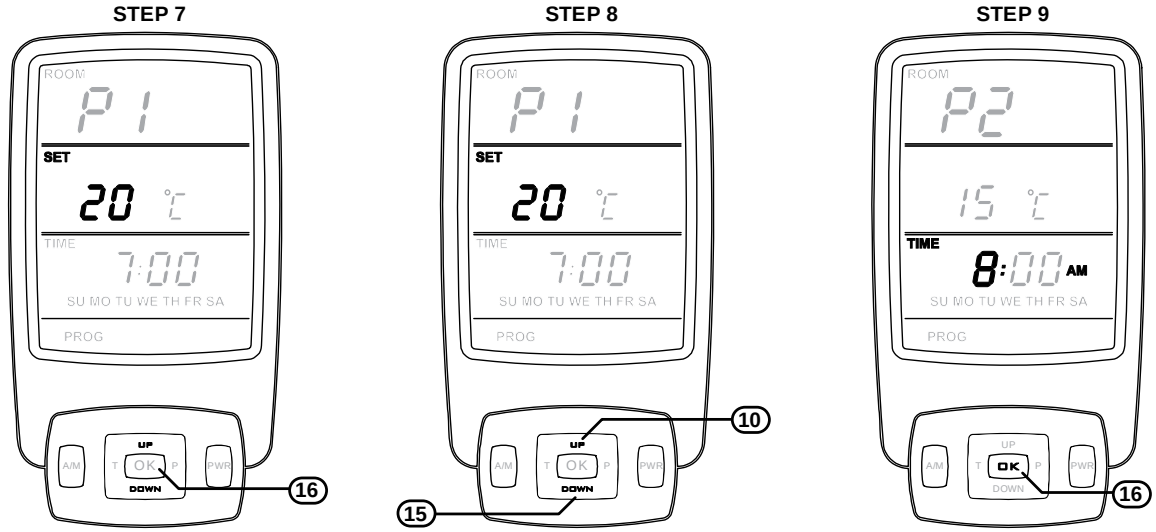


Step 3. Press the **'OK'** button (11) to enter the selected day range. The LCD will display **'PROG'. '*P1*'** and the **'TIME'** + **'HOUR'** + **'AM'** will flash.

Step 4. To select the **'ON'** hour for **'*P1*'** push the **'UP**' button (10) or **'DOWN'** button (15) until the desired hour is chosen, note that AM or PM is chosen by cycling through the 12 hour range.

Step 5. Press the **'OK'** button (11) to enter the selected hour and AM or PM. **'TIME'** + '**MINUTES'** + **'AM or PM'** will flash.

Step 6. To select the **'ON'** minutes for **'*P1*'** push the **'UP**' button (10) or **'DOWN'** button (15) until the desired minute is chosen.



Step 7. Press the **'OK'** button (11) to enter the **'ON'** minutes. **'SET'** + **'TEMPERATUTRE DIGITS'** will flash.

Step 8. To select the **'ON'** temperature for **'*P1*'** push the **'UP**' button (10) or **'DOWN'** button (15) until the desired temperature is chosen.

Step 9. Press the **'OK'** button (11) to enter the selected temperature. The LCD will display **'PROG'. '*P2*'** and the **'TIME'** + **'HOUR'** + **'AM'** will flash, this completes the programming for the **'*P1* - ON'** period. Repeat steps 3 through 9 for **'PROG'. '*P2* - OFF'**, **'*P3* - ON'** and **'*P4*' 'OFF'** periods.

CARE AND MAINTENANCE

Your heater needs very little maintenance, but the following information will help you to keep it looking good and working efficiently.

IMPORTANT

DO NOT attempt to clean the heater while the appliance is hot or operating.

All parts of the heater can be cleaned using a soft, damp cloth.

DO NOT use solvents or abrasives to clean any parts.

DO NOT spray aerosols in the vicinity of the heater whilst in operation.

DO NOT place articles on or against this heater.

DO NOT store flammable materials near this heater.

SERVICE

Rinnai recommend that this appliance and installation be inspected and serviced every 2 years or more frequently.

If the power supply cord or any other component of the heater are damaged, they must be replaced by Rinnai or a suitably qualified person.

Any service or repair work should only be carried out by an authorised person. Rinnai has service and spare parts departments nationally. See back cover for contact details.

NOTE

Service calls for general cleaning, maintenance and wear and tear are not necessarily covered under the warranty. Service calls of this nature may be chargeable.

Faults caused by insufficient gas supply, gas quality, installation errors or operation errors are not covered by the Rinnai warranty. Refer to separate Warranty Card for details.

TROUBLE SHOOTING

General Operation Characteristics

NOTE

Before asking for a service call please check the following table as these characteristics are part of the normal operation of the appliance and do not indicate a fault.

CHARACTERISTIC	EXPLANATION
At ignition:	
Warm air does not start when the burner lights.	The fan is started automatically after a short delay. This is to allow the heat exchanger to warm up, helping to avoid cold draughts. This is normal operation.
Smoke or strange smells are produced on the first start up after installation.	This is caused by grease, oil or dust on the heat exchanger. This is to be expected and will cease after a short time.
Sharp clicking noises at ignition, or when the unit thermostat modulates to a lower or higher setting, or shuts down.	This is simply expansion and contraction noise from the heat exchanger. This is a normal operation sound.
During combustion:	
Dull clunking noise when the thermostat operates.	This is the sound of the solenoid gas valves opening and closing to regulate the gas flow. These are normal operation noises.
When the appliance is turned off:	
Convection fan continues to run after turning 'OFF'.	This is to remove residual heat from the heat exchanger and stops once the appliance cools sufficiently.

CARE AND MAINTENANCE

TROUBLE SHOOTING CHECKLIST

Use the following chart to help determine whether a service call is required, however if you are unsure about the way your heater is operating, contact Rinnai or your local agent.

Fault Condition → / Probable Cause ↓	Burners fail to ignite	Smell of gas	Fan Not Working	Minor soot deposits	Severe sooting	Glass, Condensating	Glass, Streaky lines	*Remote not working	← Fault Condition / Simplest Possible Remedy ↓
Not plugged in or turned off	●		●						Plug in power cord and turn power 'ON'.
Mains power failure	●		●						Re-ignition, when power restored.
(Initial Install) Air in gas pipe	●								Installer to purge air from gas supply.
Air in hose	●								Repeat Ignition procedure.
Ignition failure	●								Repeat Ignition procedure.
Flat battery for remote control *	●							●	Replace remote control battery.
Gas supply turned off	●								Turn gas supply on at the meter or cylinder.
Gas escape		●							Isolate gas supply, call Rinnai.
Inadequate flue system	●				●				Call Rinnai.
Insufficient gas pressure	●				●				Call Rinnai.
Log Misalignment					●				Call Rinnai.
Normal operation				●			●		No action is required.
Normal operation			●						Fan not working - fan automatically comes on after 4 minutes not heat switch activated.
Normal operation						●			Allow heater to warm up.
Heat switch not activated			●						Allow heater to run on high for 4 minutes.
Possible fan fault			●						Call Rinnai.
Controller display blank	●							●	Replace batteries.
Control Panel Operation **	●							●	Refer to page 9 for solution.
Controller Not Synchronised								●	Refer to page 11 for solution.

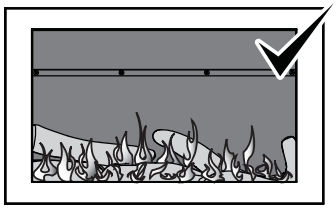
** Only applicable when optional remote controller is used.* *** Only applicable if the remote controller is programmed.*

ABNORMAL FLAME PATTERN

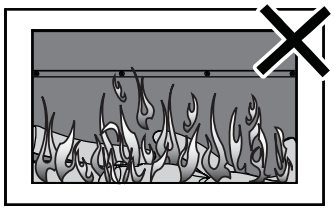
Each Rinnai Flame Fire heater has a distinct flame pattern. The flame should look the same every time you start your heater, after an initial warm up period of approximately 15 minutes.

Abnormal flame performance and/or pattern can indicate a problem with your heater, such as blocked gas injectors, incorrectly installed / inadequate flue system or the artificial logs/burn media may have shifted from when the heater was first installed.

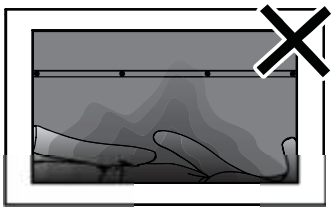
There are some warning signs that could indicate a problem. If any of the signs below occur, please contact Rinnai.



NORMAL FLAME PATTERN



ABNORMAL FLAME PATTERN



SOOT BUILD UP

Key signs of abnormal flame performance:

- Appliance turns 'OFF' soon after start up and does not relight.
- Flame appears overly orange-yellow.
- Flame appears either very short or very long.
- Flame only burns part way across the burner.
- Severe soot building up on the inside of the glass and logs.
- Continuous unusual smell from the appliance.
- Continued difficulty or delay in establishing a flame.

NOTE

Be advised that appliances incorporating a live fuel effect, and designed to operate with luminous flames, may exhibit slight carbon deposition, this is normal operation.

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THIS APPLIANCE MUST BE INSTALLED, SERVICED AND REPAIRED BY AN AUTHORISED PERSON.

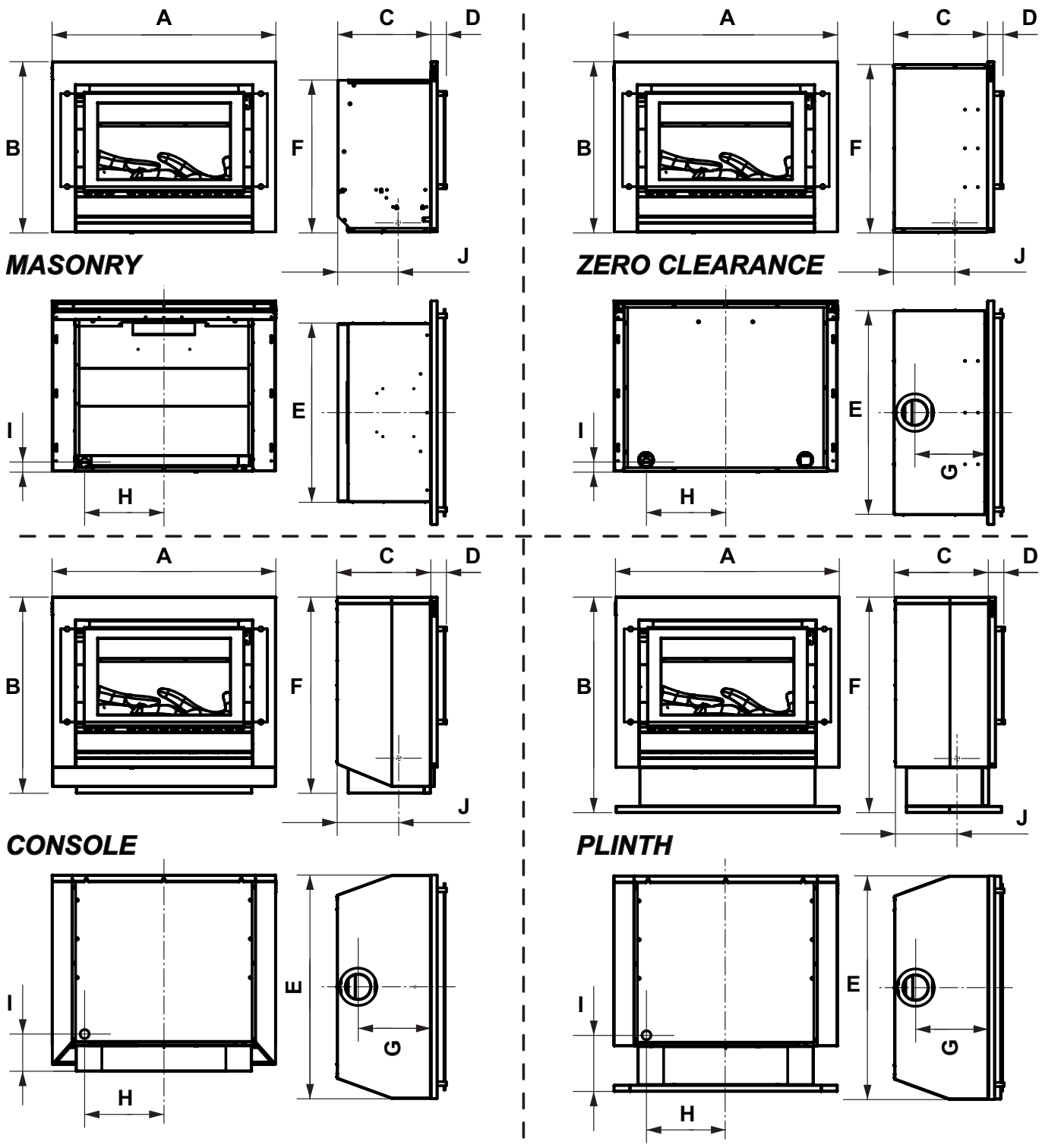
SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	RIB2310MN/A RIB2310ML/A
Model Name	Sapphire Gas Log Flame Fire
Features	Inbuilt or Freestanding Gas Space Heater Burning log effect Glass front Convection Fan, top warm air outlet Glass dress guard (standard model) Mesh dress guard (classic model)
Installation	Inbuilt Masonry, Inbuilt Zero Clearance and Freestanding options
Combustion Method	Bunsen type burner
Flue - Masonry (if required) Flue - Freestanding & zero clearance	FlexiLiner diameter. 100 mm Twin skinned diameter. 100mm x diameter. 150mm outer
Convection Fan	Double drum. 160mm x 180mm - 2 speed - Centrifugal
Gas connection	G 1/2” flared male
Gas type	NG, Propane Universal LPG
Ignition	Continuous Spark Electronic Ignition
Input / Output	Refer data plate and energy rating label on appliance
Power Consumption	High 50 W, Standby < 3.0 W 1500 mm cord is supplied with a 3 pin plug
Safety Devices	Overheat Switch Electrical Fuse Flame Failure Sensing System (FFD) Power Failure Protection Gas Lock-out (1 minute after attempted restart)
Temperature Control	Thermostatic, temperature control range 7 - 32°C
Glass - Primary Glass - Secondary Glass seal material	Ceramic Glass Tempered Glass Woven fibreglass chord - Hytex® 1000 by mid Mountain USA
Weight (Engine Only)	60 Kg - “uncrated” - no Flue
Operation	Push button control panel or via optional wireless remote/ thermostatic control

NOTE **For other appliance specifications refer to appliance data plate.**

DIMENSIONS



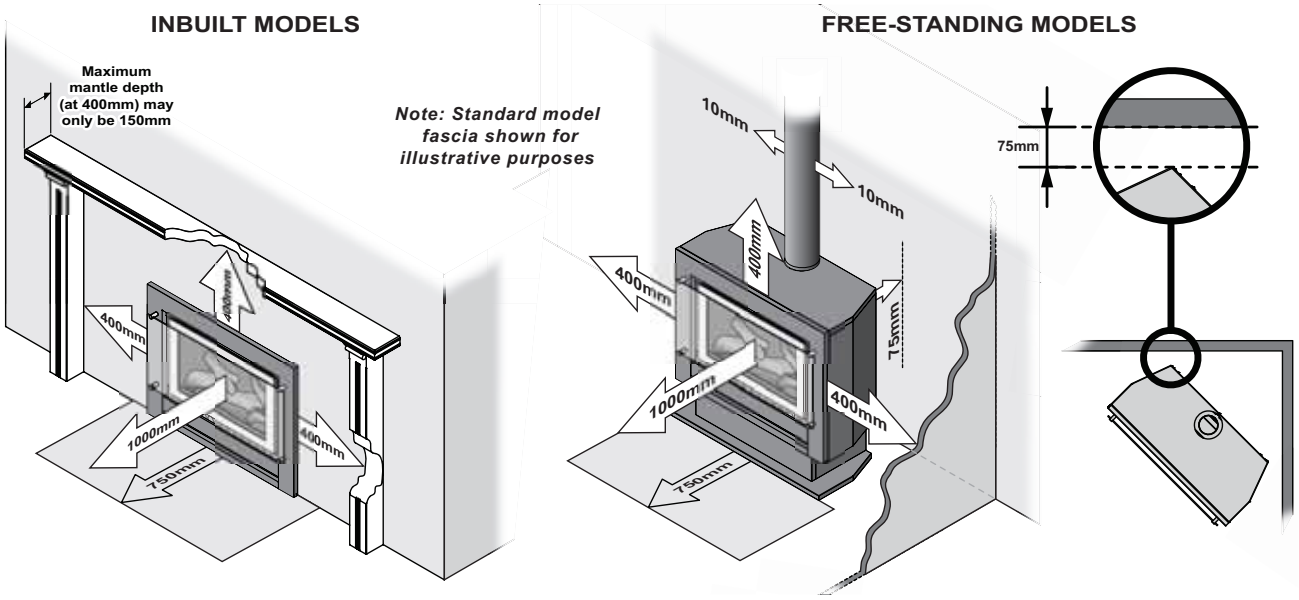
Note: Standard model fascia shown for illustrative purposes

MODEL		External Dimensions - Flue Centre							Gas Connection		
		A	B	C	D	E	F	G	H	I	J
Masonry	Standard	865mm	660mm	359mm	62mm	691mm	589mm	-	305mm	45mm	235mm
	Classic	865mm	701mm	359mm	76mm	691mm	589mm	-	305mm	45mm	235mm
Zero Clearance	Standard	865mm	660mm	363mm	62mm	795mm	650mm	280mm	305mm	45mm	240mm
	Classic	865mm	701mm	363mm	76mm	795mm	650mm	280mm	305mm	45mm	240mm
Console		865mm	760mm	363mm	62mm	865mm	760mm	280mm	305mm	144mm	235mm
Plinth		865mm	837mm	363mm	62mm	865mm	837mm	280mm	305mm	219mm	235mm

HEATER LOCATION

GENERAL LOCATION INFORMATION

- When positioning the heater, the main variables governing the location are Flueing and Warm Air Distribution.
- This heater must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining. Refer to page 5 and page 6 for additional safety consideration.
- Mantles and surrounds can be added to compliment the design provided that they conform to the clearances shown in the diagrams below.
- The minimum clearance from the edge of the appliance is 400 mm. The depth of the mantle/surrounds at the minimum clearance may not exceed 150 mm.
- An additional 100 mm of clearance is required for every extra 50 mm of mantle depth, i.e. for a 200 mm deep mantle the clearance is 500 mm (as shown below).



TV AND ORNAMENTATION WARNING

CAUTION

INSTALLATION OF TV OR ORNAMENTATION ABOVE THE HEATER

The installation of electrical appliances above and in the vicinity of the heater such as, but not limited to, Plasma TV, LCD TV, Home Theatre Screens, Speakers, etc must comply with their manufacturers' instructions.

It is the responsibility of the installer/end-user to check the installation instructions of these items and to ensure the location is suitable.

This caution also extends to, but is not limited to, ornaments such as: Paintings, Prints, Photographs, Tapestries, Mirrors, Stuffed Animals, etc.

Please note the recommended clearances as per the diagram above.

The temperature of the wall surface directly above the appliance may be elevated and may discolour paint finishes or distort vinyl wall coverings. For durability of surfaces you should contact the relevant manufacturer for their specification.

IDEA

Use either a shelf or mantle below the TV or ornament or alternately you can construct a recess to mount TV or ornament in.

Check the manufacturers installation instructions for these items and ensure the recess is suitable.

NOTE

Rinnai does not take any responsibility for any damage occurring to any items installed above and in the vicinity of the heater.

HEATER LOCATION

ENCLOSURE REQUIREMENTS

Masonry Fireplace

The appliance must be positioned within the fireplace on a flat level surface.

If the appliance is elevated from the ground within the structure, a base must be constructed using suitable material with supporting joists capable of supporting a minimum of 1.5 times the weight of the appliance.

Zero Clearance In-built installation

Framework of the installation must conform to local building codes. Non-combustible materials need not be used.

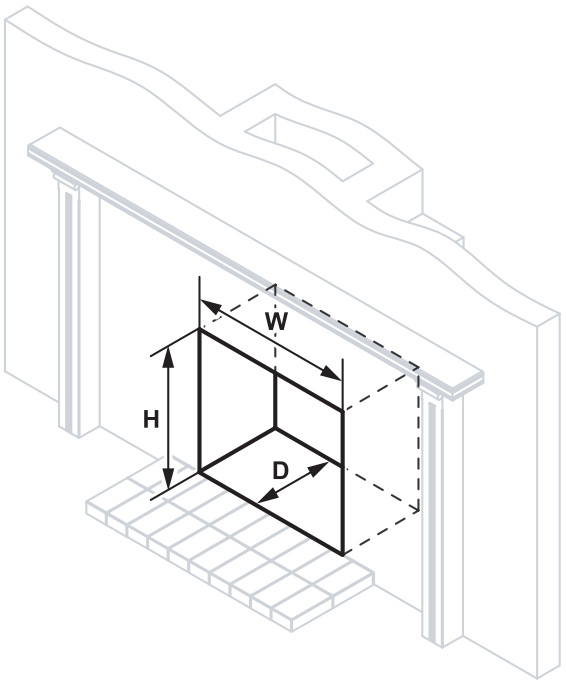
If the appliance is elevated from the ground within the structure, a base must be constructed using suitable material with supporting joists capable of supporting a minimum of 1.5 times the weight of the appliance.

CAUTION **AS 5601 "GAS INSTALLATIONS" requires that flue components be supported independently of the appliance.**

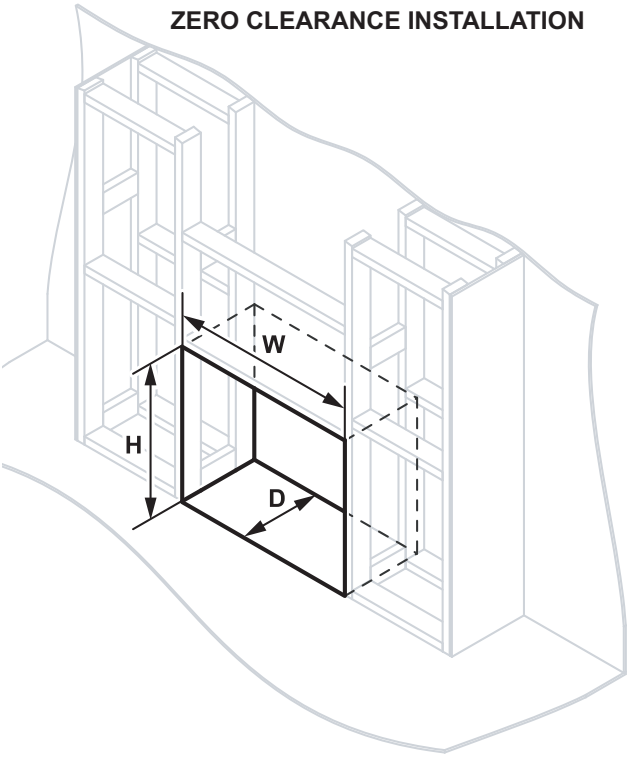
ENCLOSURE DIMENSIONS

Enclosure dimensions are shown below. The enclosure dimensions specified are critical to the successful installation of this appliance and must be strictly adhered to.

MASONARY INSTALLATION



ZERO CLEARANCE INSTALLATION



	All dimensions are minimums and are in mm		
MODEL	**Height (H)**	**Width (W)**	**Depth (D)**
Masonry	600	695	370
Zero Clearance	650	800	420 *(read caution below)*

CAUTION **For clarity the consumer piping gas supply, electrical connections and some construction details have been omitted. Refer to "GAS SUPPLY" on page 27 and "ELECTRICAL SUPPLY" on page 28 for details.**

When preparing a cavity / frame for a zero clearance installation the total cavity depth MUST also include the thickness of the external cladding, as the zero clearance box MUST BE installed flush with the cladding surface. Failure to do this will cause misalignment of the flue systems.

HEATER ENGINE - GENERAL INSTALLATION

GAS SUPPLY

WARNING **Gas pipe sizing must consider the gas input to this appliance as well as all other gas appliances in the premises. The gas meter and regulator must be specified for the total gas rate. A suitable sizing chart such as the one in AS 5601 should be used.**

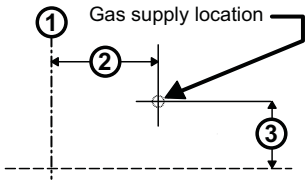
IMPORTANT **Confirm correct gas type (see labels located on top or rear panels). Refer to local gas authority for confirmation of gas type if you are in doubt.**

Installation of consumer piping

The gas supply (consumer piping), termination is inside the heater and enters through the rear of the appliance.

Refer to the dimensional drawings on page 24 for appliance gas inlet location and other relevant dimensions.

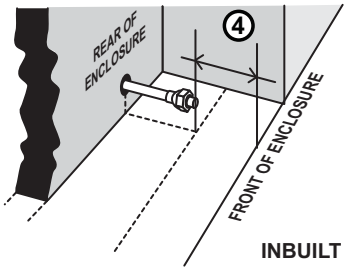
Mark off the location for the vertical centre line ① of the heater enclosure (inbuilt installations) or heater (freestanding installations).



To the right of the vertical centre line ①, mark off both the vertical ② and horizontal ③ location for the gas supply penetration (consumer piping). For measurements refer to the Gas Supply Dimension Table below.

Inbuilt Models: The length of the gas supply (consumer piping) termination ④ is measured from the front of the enclosure.

Freestanding Models: The length of the gas supply (consumer piping) termination ④ is measured from the back of the heater plus 95mm.



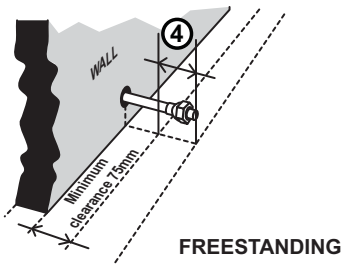
INBUILT

NOTE **For freestanding models the minimum clearance of 75mm from the wall must be observed.**

At the minimum clearance the total length of the consumer pipe is 170mm (75mm + 95mm)

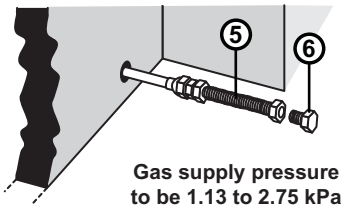
Gas Supply Dimension Table

	Inbuilt		Freestanding	
	Masonry	**Zero Clearance**	**Console**	**Plinth**
②	305mm to right of appliance centre-line	305mm to right of appliance centre-line	305mm to right of appliance centre-line	305mm to right of appliance centre-line
③	45mm from base of enclosure	45mm from base of enclosure	144mm from floor level	219mm from floor level
④	Consumer piping to be terminated 265mm from the front of enclosure	Consumer piping to be terminated 265mm from the front of enclosure	Consumer piping to be terminated at wall clearance plus 95mm	Consumer piping to be terminated at wall clearance plus 95mm



FREESTANDING

Once the consumer piping has been terminated to the above requirements the supplied flexible gas connection ⑤ may then be fitted.



Gas supply pressure to be 1.13 to 2.75 kPa

Purging Gas Supply

Foreign materials and debris such as swarf, filings, etc. **MUST BE** purged/ removed from the gas supply, failure to do so may cause damage to the gas control valve causing it to malfunction.

Leak Testing The Connection

With the supplied plug ⑥ inserted into the end of the flexible gas connection leak test all joints.

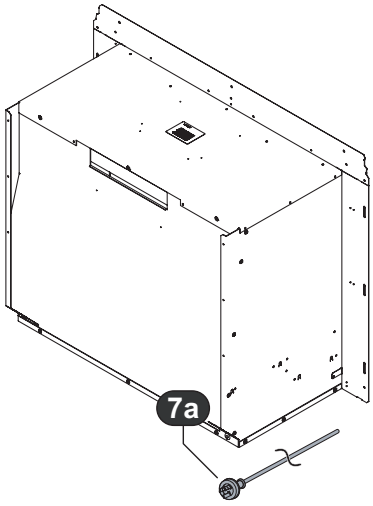
CAUTION **Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.**

HEATER ENGINE - GENERAL INSTALLATION

ELECTRICAL SUPPLY

If a power point is used it **MUST BE** 240 V, rated at 10A and **MUST BE** earthed. This power point **MUST NOT** be located above the heater. Alternatively the appliance can be direct wired if the power supply is to be concealed.

The heater engine is fitted with a 1.5 m power cord and three pin plug 7a which exits the appliance from the rear panel at the lower left.



Direct Wired Installations

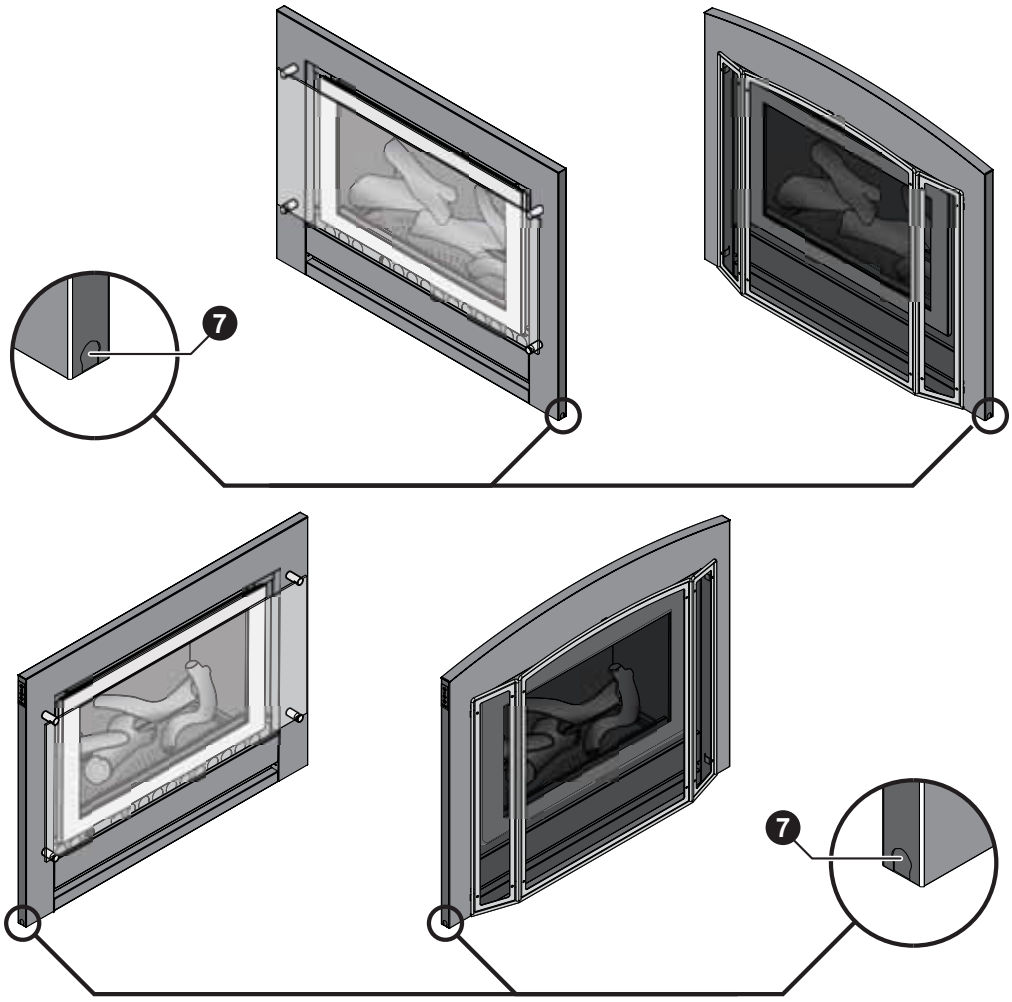
Alternatively the appliance can be direct wired if the power supply is to be concealed.

IMPORTANT **A qualified electrician will need to be consulted where a direct wired installation is required. Any such installation must comply with the requirements of AS 5601, AS 3000 and any other relevant local regulations.**

Using Existing Externally Mounted Power Points on Inbuilt Installations

If you already have an existing wall plug located outside of the intended fireplace or enclosure you may redirect the power cord and plug assembly through the front panel. With Fascia assembly removed, simply redirect the cord and plug assembly with grommet from the rear of the unit, underneath the fire-box to the front of the unit, (either left or right).

Carefully remove the pre-punched sheet metal 'knock-out' section located in the lower left or right edge 7 of the Fascia Assembly. Refit the cord and plug assembly to the Fascia assembly ensuring the grommet is fitted to the sheet metal. Excess cord may be left in the cavity below the fire box. **DO NOT** coil excess cord.



HEATER ENGINE - GENERAL INSTALLATION

FLUEING

WARNING

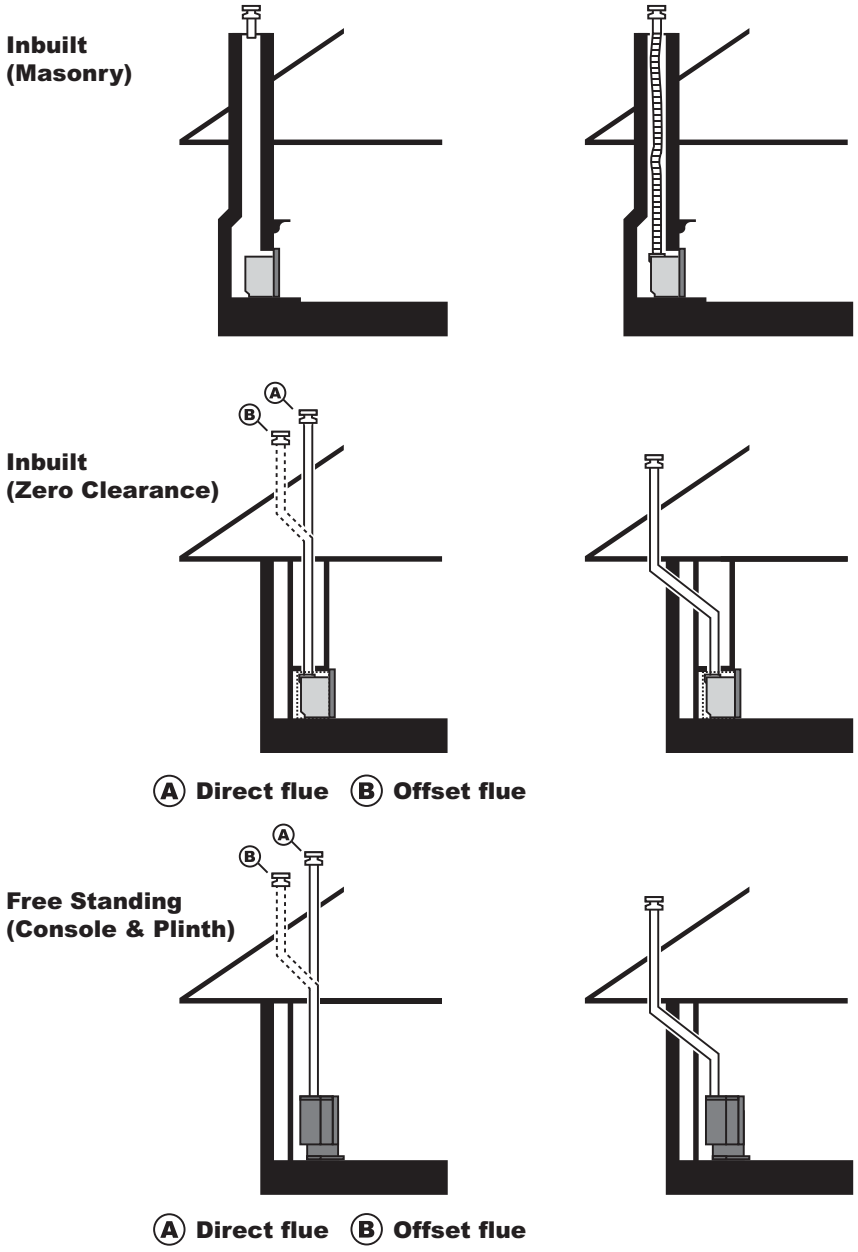
The following diagrams illustrate the flue installation options that are available for the Sapphire flame. Only the genuine Rinnai Flamefire (FLF) flue is certified as part of the Rinnai Sapphire space heaters.

Only an authorised person must install, service and remove the Rinnai Sapphire space heater & flue system.

Only the flue system components described in the 'Flueing Installation Manual For Rinnai Flamefire Heaters' that is provided with the flue kit must be used.

Components that are not described in that manual, whether manufactured by Rinnai or otherwise, are not compatible and must not be used.

Rinnai appliance warranty conditions may be voided if non Rinnai flue components are fitted.



Ⓐ Direct flue Ⓑ Offset flue

Ⓐ Direct flue Ⓑ Offset flue

Install the Rinnai rigid flue system components in accordance with the 'Flueing Installation Manual For Rinnai Flamefire Heaters' that are provided with the flue kit.

NOTE

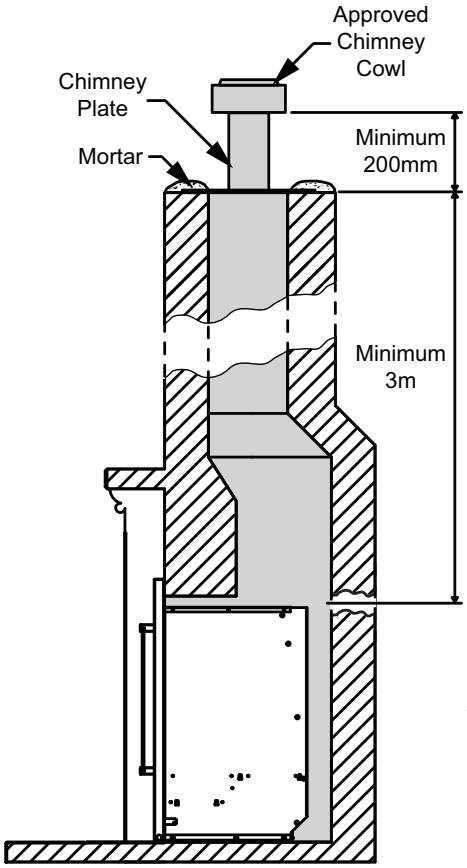
For masonry installation details refer to "MASONRY FLUE INSTALLATION" on page 30.

MASONRY FLUE INSTALLATION

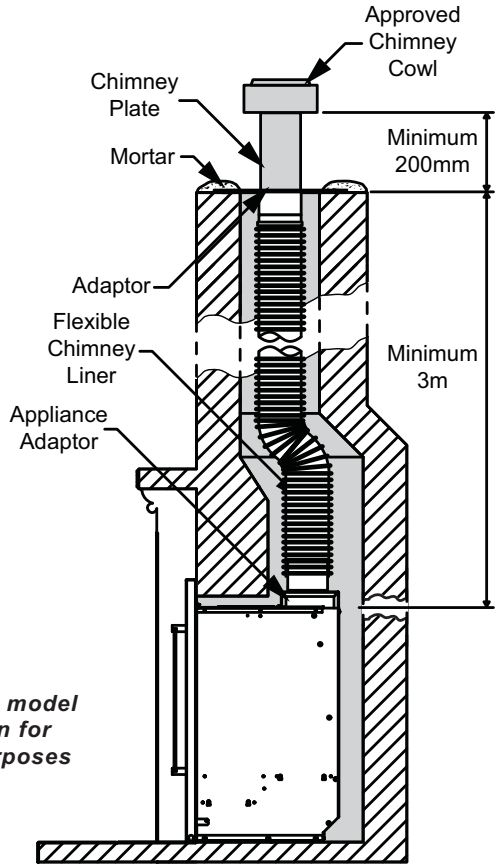
Two masonry flue installation options available. These are Open Chimney and Lined Chimney.

An 'Open Chimney' installation uses the natural draft properties of a sound chimney along with the addition of an approved chimney plate and cowl to provide the flueing for the heater.

A 'Lined Chimney' installation is used when the existing chimney condition is inadequate for an Open Chimney' installation and uses a Rinnai Flexiliner (flexible) flue system, chimney plate and cowl to provide the flueing for the heater.



Open Chimney Installation



Lined Chimney Installation

Note: Standard model fascia shown for illustrative purposes

OPEN INSTALLATION METHOD

The chimney must be physically checked first and must meet the following set criteria along with local regulations. Failure to meet these criteria will not only void the product warranty but may affect the performance of the heater and may void the warranty.

Chimney Criteria For Open Installation

- All loose/broken bricks must be replaced or repaired ensuring the chimney is of sound construction and does not leak in accordance with AS 5601.
- Any under floor air supply to the fireplace must be completely sealed off to prevent secondary air draw.
- Total chimney height **MUST NOT** be less than 3 metres and flue cowl must terminate above the chimney in accordance with AS5601.
- The chimney must be swept clean and be free of soot and creosote that may have built up if previously used for a solid fuel fire.
- The hearth surface must be flat and level to support the entire heater. If the heater is not properly supported noise and vibration may result.

NOTE **In a masonry fireplace, use a slurry of sand and cement to level the base as required.**

HEATER ENGINE INSTALLATION - MASONRY

MASONRY INSTALLATION OVERVIEW

Read this manual thoroughly and gain a full understanding of the requirements before undertaking installation.

Ensure gas supply to heater is turned off for the first stages of this instruction.

Step 1. Prepare Site - p.31
Step 2. Unpack The Heater Engine - p.31
Step 3. Preparing Heater Engine - p.31
Step 4. Positioning the Heater Engine - p.32
Step 5. Connect Electrical Supply - p.32
Step 6. Prepare Gas Supply - p.32
Step 7. Insert Heater Engine Into Fireplace - p.32
Step 8. Securing The Heater Engine - p.32
Step 9. Connecting Gas - p.32
Step 10. Leak Testing - p.32
Step 11. Completing Heater Installation - p.32

MASONRY INSTALLATION - DETAIL

Step 1. Prepare Site

Ensure the intended enclosure meets the requirements of the dimensions as stipulated in "ENCLOSURE REQUIREMENTS" on page 26 and that gas and electrical supplies have been prepared in accordance with the dimensions stipulated in "GAS SUPPLY" on page 27 and "ELECTRICAL SUPPLY" on page 28.

Step 2. Unpack The Heater Engine

The heater engine is supplied in one carton, check to ensure you have all contents as listed on "BEFORE YOU START" on page 1 at the start of this manual before proceeding.

Carefully remove carton by removing the straps and lifting the carton off the appliance. Remove all packaging materials and check all components for damage. If **ANY** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice.

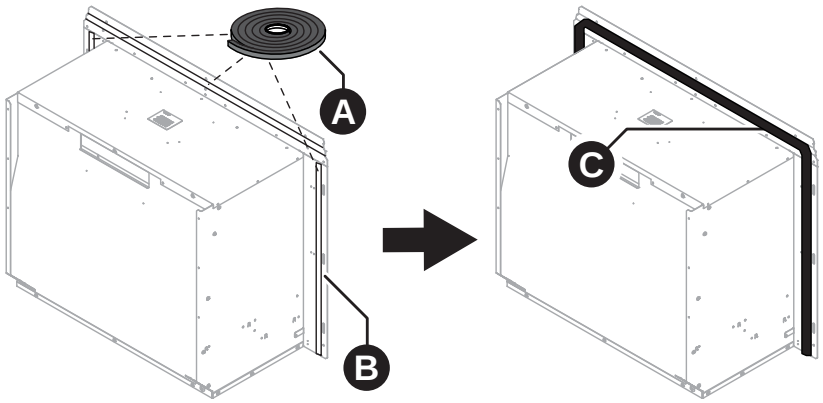
Retain the cardboard carton for use in the "Positioning the Heater Engine" on page 32.

Before installing the heater, check it is labelled for the correct gas type, (refer to the gas type label on the top body panel of the heater). Refer to the local gas authority for confirmation of gas type if you are in doubt.

Step 3. Preparing Heater Engine

Attach the adhesive backed foam sealing strip **A** supplied to rear face of the fascia assembly mounting panel **B**. Ensure the seal is stuck to the Fascia Assembly mounting panel at approximately 30mm from the top edge **C**.

The foam strip is intended to form a seal between the heater and the fireplace brickwork. If an adequate seal cannot be formed then another means of sealing must then be used. (e.g. non combustible insulation or heat resistant silicon).



HEATER ENGINE INSTALLATION - MASONRY

Step 4. Positioning the Heater Engine

Place the heater engine in front of the fireplace enclosure.

HINT **A panel from the cardboard packing carton placed on the floor underneath the heater will help prevent possible damage to flooring.**

Step 5. Connect Electrical Supply

Plug in the 3 pin connector if electrical connections inside the fireplace.

Step 6. Prepare Gas Supply

Remove the threaded brass plug from the S/S flexi pipe consumer gas supply pipe.

Step 7. Insert Heater Engine Into Fireplace

Carefully move the heater engine into the fireplace ensuring the gas supply pipe and fittings (D) feed into the rear access hole.

CAUTION **Take care that the electrical cord does not bunch up or get pinched behind the heater engine.**

Step 8. Securing The Heater Engine

Fasten the heater to the masonry work using appropriate fasteners (not supplied) using the three holes across the top of the fascia assembly mounting panel and in at least 2 of the holes on each side of the side panels as shown (E).

Step 9. Connecting Gas

Firmly grasp the S/S flexi pipe (D) and bend at 90° approximately mid way to line up with the gas control valve inlet (F) then attach pipe to gas control valve and tighten.

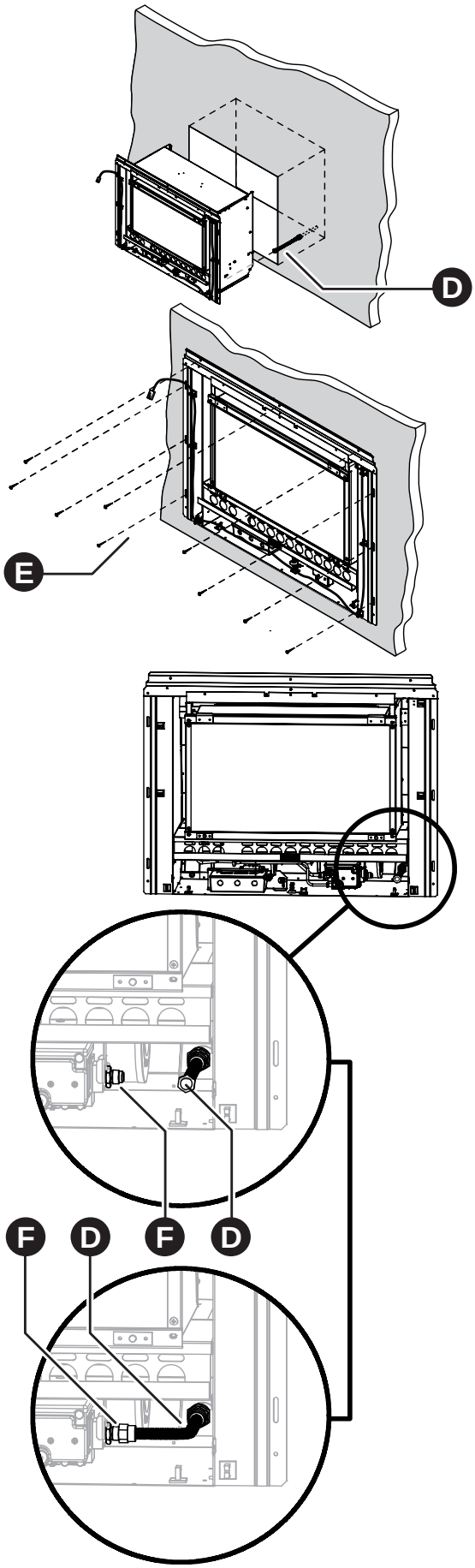
Step 10. Leak Testing

Turn gas back ON and leak test appliance connection.

CAUTION **Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.**

Step 11. Completing Heater Installation

Go to "COMPLETING HEATER INSTALLATION" on page 42.



HEATER ENGINE INSTALLATION - ZERO CLEARANCE

ZERO CLEARANCE INSTALLATION OVERVIEW

IMPORTANT

Read this manual thoroughly and gain a full understanding of the requirements before undertaking installation.

Ensure gas supply to heater is turned off for the first stages of this instruction.

Step 1. Prepare Site - p.33
Step 2. Assemble Zero Clearance Box. - p.33
Step 3. Fitting Zero Clearance Box Into Cavity - p.34
Step 4. Unpack The Heater Engine - p.34
Step 5. Preparing Heater Engine - p.34
Step 6. Positioning the Heater Engine - p.35
Step 7. Connect Electrical Supply - p.35
Step 8. Prepare Gas Supply - p.35
Step 9. Insert Heater Engine Into Fireplace - p.35
Step 10. Securing The Heater Engine - p.35
Step 11. Connecting Gas - p.35
Step 12. Leak Testing - p.35
Step 13. Completing Heater Installation - p.35

ZERO CLEARANCE INSTALLATION - DETAIL

Step 1. Prepare Site

IMPORTANT

Ensure the intended enclosure meets the requirements of the dimensions as stipulated in "ENCLOSURE REQUIREMENTS" on page 26 and that gas and electrical supplies have been prepared in accordance with the dimensions stipulated in "GAS SUPPLY" on page 27 and "ELECTRICAL SUPPLY" on page 28.

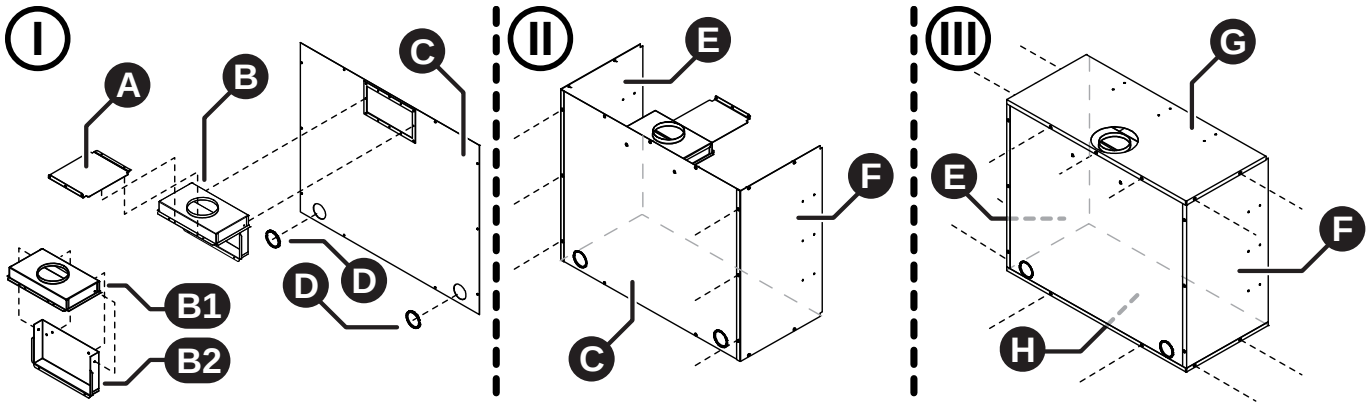
Ensure there are no wall studs, noggins, ceiling joists, wiring or other obstruction within the wall and or ceiling cavity where the flue is proposed to penetrate.

Step 2. Assemble Zero Clearance Box.

Carefully remove the contents from the carton and check to ensure you have all contents as listed in "BEFORE YOU START" on page 1. If **ANY** damage is evident or parts are missing **DO NOT** assemble the zero clearance box and contact your supplier for advice

NOTE

Flue guide rails and pop rivets supplied with Zero Clearance kit, part number R2340.



I. Assemble the transition box halves **B1** and **B2**, secure together with 4 x screws (supplied).

Attach the guide plate **A** to the transition box assembly **B** and secure with two pop-rivets (supplied).

Drill 2 x Ø 3.2mm holes in the pre pressed location dimples on the back of the transition box and fit the transition box assembly **A** **B** to the back panel **C** and secure with the two screws (supplied).

Fit the two plastic grommets **D** into the gas and electrical access holes of back panel **C**.

II. Attach the two side panels **E** & **F** to the back panel **C** and secure with six screws (suppled).

III. Attach top panel **G** to the back panel **C** aligning the flue outlet hole to the rear over the transition box outlet and secure with three screws (supplied).

Next secure the top panel **G** to the side panels **E** & **F** with four screws (supplied).

Attach base panel **H** to the back panel **C** and secure with two screws (supplied).

Then secure the base panel **H** to the side panels **E** & **F** with four screws (supplied).

Ensure flue has been installed as per 'Flueing Installation Manual For Rinnai Flamefire Heaters'.

HEATER ENGINE INSTALLATION - ZERO CLEARANCE

Step 3. Fitting Zero Clearance Box Into Cavity

Slide zero clearance box assembly into the cavity, ensuring the gas and electricity supplies are accessible.

CAUTION

When preparing a cavity / frame for a zero clearance installation the total cavity depth MUST also include the thickness of the external cladding (I), as the zero clearance box MUST BE installed flush with the cladding surface, failure to do this will cause misalignment of the flueing.

Secure the zero clearance into the cavity (J) with appropriate fasteners (not supplied).

Install the Rinnai rigid flue system components (K) in accordance with the 'Flueing Installation Manual For Rinnai Flamefire Heaters' that is provided with the flue kit.

IMPORTANT

Ensure there are no wall studs, noggins, ceiling joists, wiring or other obstruction within the wall and or ceiling cavity where the flue is proposed to penetrate.

Step 4. Unpack The Heater Engine

The heater engine is supplied in one carton, check to ensure you have all contents as listed on "BEFORE YOU START" on page 2 at the start of this manual before proceeding.

Remove carton by removing the straps and carefully lifting the carton off the appliance. Remove all packaging materials and check all components for damage. If **ANY** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice.

HINT

Retain the card board carton for use in the "Positioning the Heater Engine" on page 35.

Before installing the heater, check it is labelled for the correct gas type, (refer to the gas type label on the top body panel of the heater). Refer to the local gas authority for confirmation of gas type if you are in doubt.

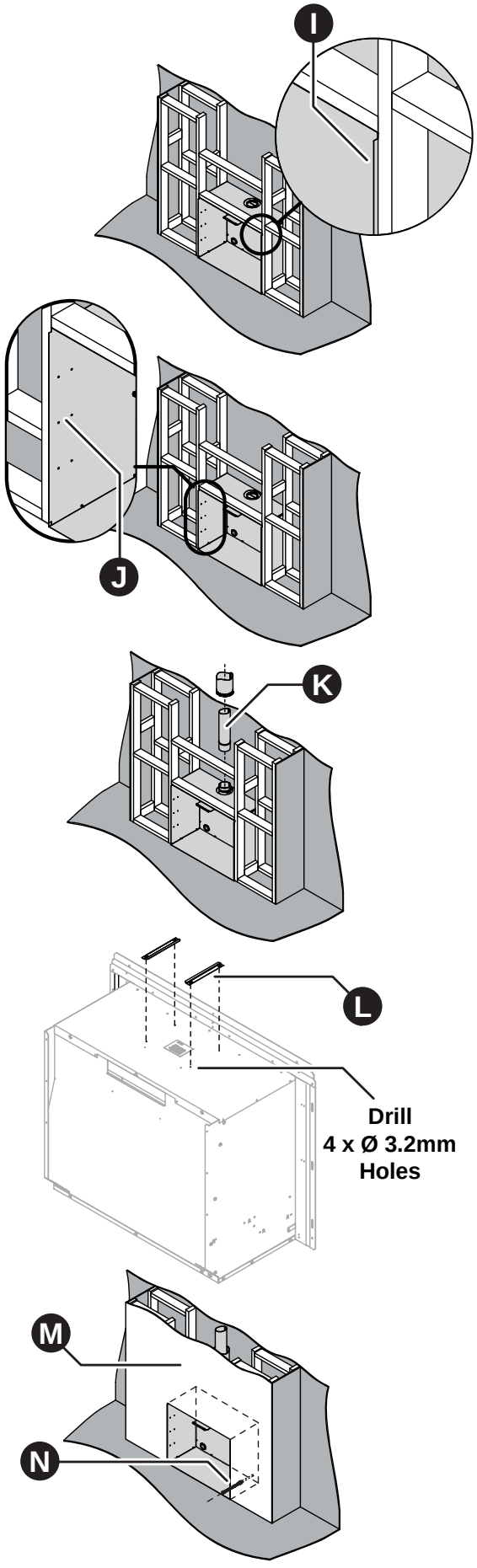
Step 5. Preparing Heater Engine

Drill 4 x Ø 3.2mm holes in the pre pressed location dimples in the top panel of the heater. Then attach the flue guide rails (L) using these holes with four screws (supplied).

IMPORTANT

Flue guide rails and pop rivets supplied with Zero Clearance kit, part number R2340.

Before proceeding any further with the heater engine installation ensure the cladding for the front of the enclosure has been fitted (M).



HEATER ENGINE INSTALLATION - ZERO CLEARANCE

Step 6. Positioning the Heater Engine

Place the heater engine in front of the zero clearance box / cavity.

HINT

A panel from the cardboard packing carton placed on the floor underneath the heater engine will help prevent possible damage to flooring.

Step 7. Connect Electrical Supply

Plug in 3 pin connector if electrical connections are inside the fireplace.

Step 8. Prepare Gas Supply

Remove the threaded brass plug from the S/S flexi pipe consumer gas supply pipe.

Step 9. Insert Heater Engine Into Fireplace

Carefully move the heater engine into the zero clearance box ensuring the gas supply pipe and fittings (N) feed into the rear access hole.

CAUTION

Take care that the electrical cord does not bunch up or get pinched behind the heater engine.

Align the guide rails (L) with the guide plate (A) and slide the heater engine in until the guide plate (A) is fully home against the rear of the fascia assembly mounting panel (O).

Step 10. Securing The Heater Engine

Secure the guide plate (A) to fascia assembly mounting panel (O) with two screws (P) (supplied).

Fasten the heater engine to cladding surface using appropriate fasteners (not supplied) in at least 4 positions as shown (Q).

Step 11. Connecting Gas

Firmly grasp the S/S flexi pipe (N) and bend at 90° approximately mid way to line up with the gas control valve inlet (R) then attach pipe to gas control valve and tighten.

Step 12. Leak Testing

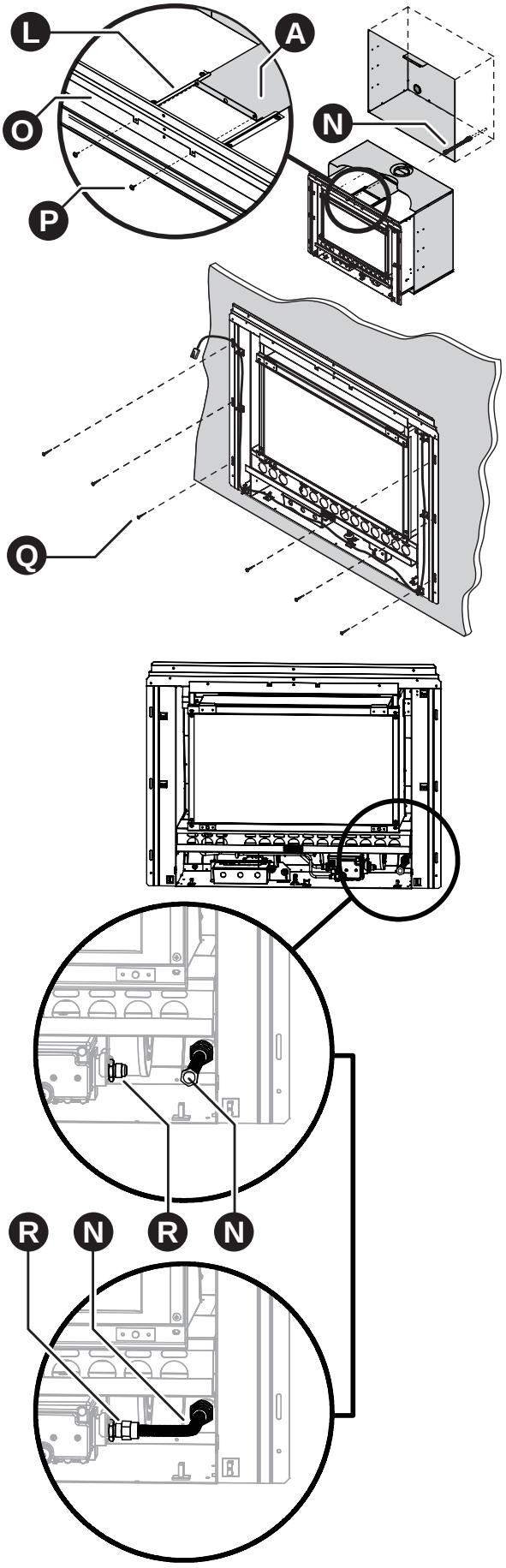
Turn gas back ON and leak test appliance connection.

CAUTION

Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.

Step 13. Completing Heater Installation

Go to "COMPLETING HEATER INSTALLATION" on page 42.



HEATER ENGINE INSTALLATION - CONSOLE

FREESTANDING CONSOLE INSTALLATION OVERVIEW

IMPORTANT

Read this manual thoroughly and gain a full understanding of the requirements before undertaking installation.

Ensure gas supply to heater is turned off for the first stages of this instruction.

Step 1. Prepare Site - p.36
Step 2. Unpack Heater Engine & Console Kit - p.36
Step 3. Assemble & Secure Pillar Assembly - p.36
Step 4. Attach Spigot Adaptor & Panels To Heater Engine - p.37
Step 5. Prepare Gas Supply - p.37
Step 6. Fit Heater Engine To Pillar Assembly - p.37
Step 7. Connect Electrical Supply - p.38
Step 8. Connecting Gas - p.38
Step 9. Leak Testing - p.38
Step 10. Completing Heater Installation - p.38

FREESTANDING CONSOLE INSTALLATION - DETAIL

Step 1. Prepare Site

IMPORTANT

Ensure the intended installation area has been prepared in accordance with dimensions as stipulated in "GAS SUPPLY" on page 27 and "ELECTRICAL SUPPLY" on page 28.

Ensure there are no wall studs, noggins, ceiling joists, wiring or other obstruction within the wall and or ceiling cavity where the flue is proposed to penetrate.

Step 2. Unpack Heater Engine & Console Kit

The heater engine and the console kit are supplied in separate cartons, check to ensure you have all contents as listed on "BEFORE YOU START" on page 1 at the start of this manual before proceeding.

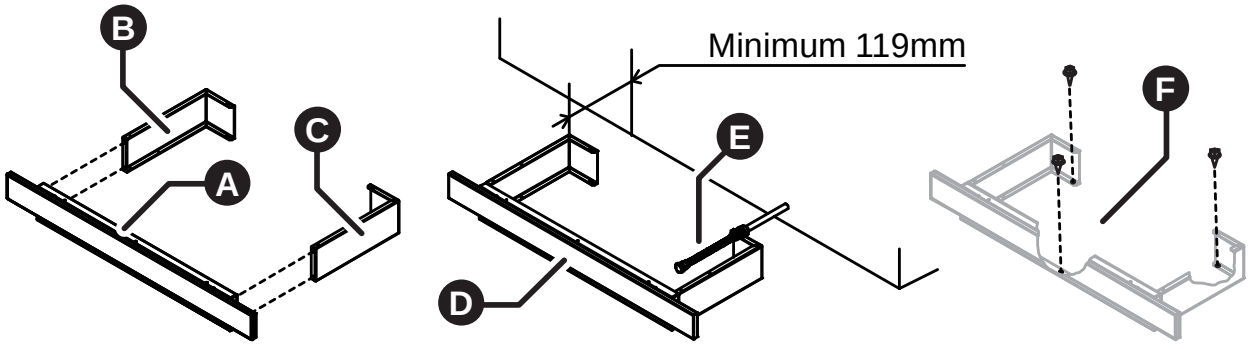
For heater engine remove carton by removing the straps and carefully lifting the carton off the appliance. Remove all packaging materials and check all components for damage. If **ANY** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice.

HINT

Retain the card board carton for use in the "Attach Spigot Adaptor & Panels To Heater Engine" on page 37.

Before installing the heater, check it is labelled for the correct gas type, (refer to the gas type label on the top body panel of the heater engine). Refer to the local gas authority for confirmation of gas type if you are in doubt.

Step 3. Assemble & Secure Pillar Assembly



Assemble the pillar assembly A, B and C using the 4 - 8g x 10mm self tapping screws supplied creating base assembly D.

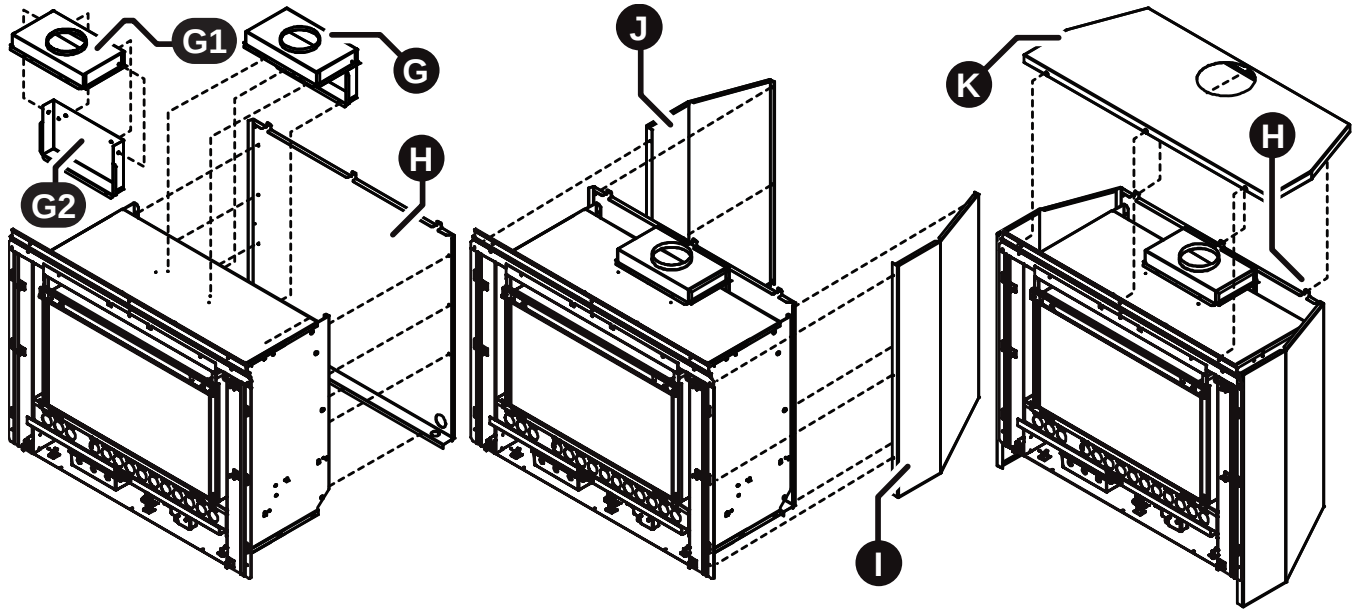
HINT

A panel from the cardboard packing carton placed on the floor underneath the heater engine and console components will help prevent possible damage to flooring during assembly.

Confirm the correct gas supply position E and locate the base assembly D in the selected installation position and fasten to the floor using appropriate fasteners (not supplied) through the three holes in the base plate F.

HEATER ENGINE INSTALLATION - CONSOLE

Step 4. Attach Spigot Adaptor & Panels To Heater Engine



Assemble the spigot adaptor halves G1 and G2, secure together with 4 x screws (supplied).

Drill 4 x Ø 3.2mm holes in the pre pressed location dimples on the top and back of the heater engine, then fit the flue spigot adaptor G to the heater engine top and rear panels using 4 - 8g x 10mm self tapping screws (supplied).

Fit the rear panel H using 9 - 8g x 10mm self tapping screws (supplied).

IMPORTANT **Before attempting to fit the side panels it is necessary to elevate the heater engine 100mm off the ground.**

Fit side Panels I and J to heater body at the front and the rear panel using 12 - 8g x 10mm self tapping screws (supplied).

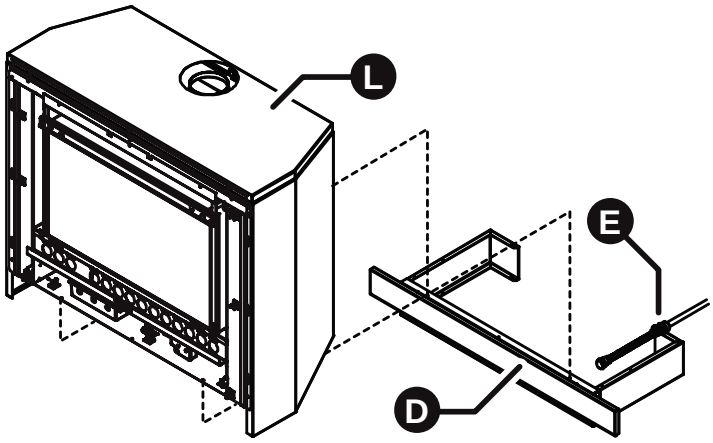
Carefully align top panel K over tabs of the rear panel H, fasten to the heater at the front using 3 - M5 x 12mm screws (supplied) and at the rear using 3 - 8g x 10mm self tapping screws (supplied).

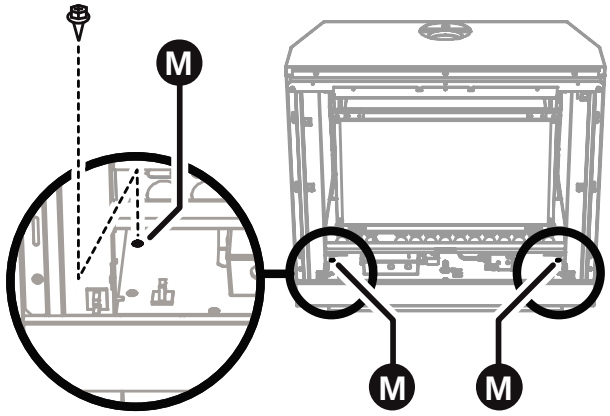
Step 5. Prepare Gas Supply

Remove the threaded brass plug from the S/S flexi pipe consumer gas supply pipe.

Step 6. Fit Heater Engine To Pillar Assembly

WARNING **The following installation step requires a two man lift. Seek assistance before proceeding further.**





Carefully lift the heater engine assembly L onto the plinth assembly D ensuring that the gas supply pipe and fittings E feed into the rear access hole.

CAUTION **Take care that the electrical cord does not bunch up or get pinched behind the heater engine.**

Align the heater securing holes over the M5 root nuts, then secure using the 4 - M5 x 12mm screws supplied. Note that two screws are located midway into the appliance on the lower left and right edges, refer to detail M above.

HEATER ENGINE INSTALLATION - CONSOLE

Step 7. Connect Electrical Supply

Plug in 3 pin connector, if a general purpose outlet (power point) is used.

Step 8. Connecting Gas

Firmly grasp the S/S flexi pipe (E) and bend at 90° approximately mid way to line up with the gas control valve inlet (N) then attach pipe to gas control valve and tighten.

Step 9. Leak Testing

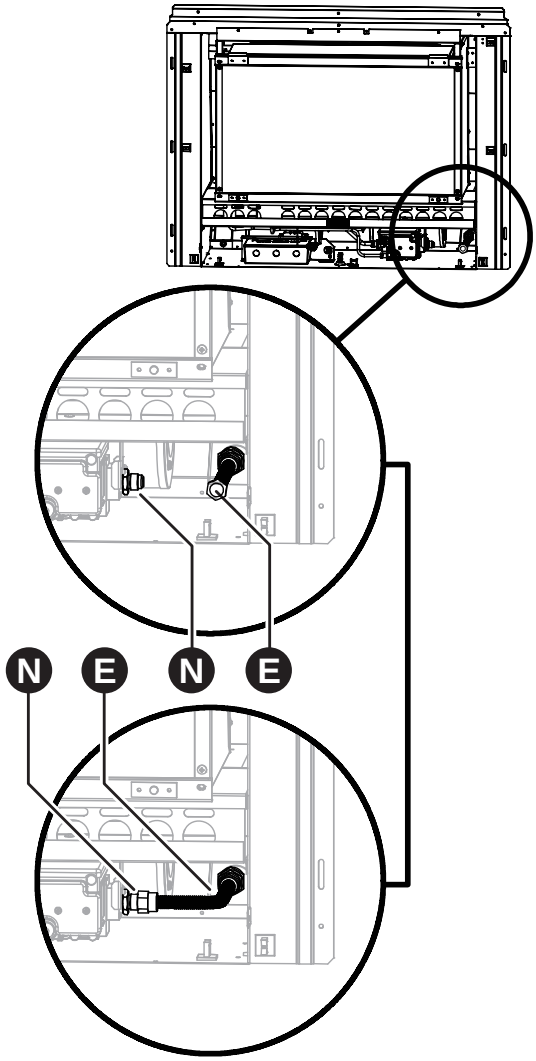
Turn gas back ON and leak test appliance connection.

CAUTION

Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. When finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.

Step 10. Completing Heater Installation

Go to “COMPLETING HEATER INSTALLATION” on page 42.



HEATER ENGINE INSTALLATION - PLINTH

FREESTANDING PLINTH INSTALLATION OVERVIEW

Read this manual thoroughly and gain a full understanding of the requirements before undertaking installation.

Ensure gas supply to heater is turned off for the first stages of this instruction.

Step 1. Prepare Site - p.39
Step 2. Unpack Heater Engine & Console Kit - p.39
Step 3. Assemble & Secure Plinth Assembly - p.39
Step 4. Attach Spigot Adaptor & Panels To Heater Engine - p.40
Step 5. Prepare Gas Supply - p.40
Step 6. Fit Heater Engine To Plinth Assembly - p.40
Step 7. Connect Electrical Supply - p.41
Step 8. Connecting Gas - p.41
Step 9. Leak Testing - p.41
Step 10. Completing Heater Installation - p.41

FREESTANDING PLINTH INSTALLATION - DETAIL

Step 1. Prepare Site

Ensure the intended installation area has been prepared in accordance with dimensions as stipulated in "GAS SUPPLY" on page 27 and "ELECTRICAL SUPPLY" on page 28.

Ensure there are no wall studs, noggins, ceiling joists, wiring or other obstruction within the wall and or ceiling cavity where the flue is proposed to penetrate.

Step 2. Unpack Heater Engine & Console Kit

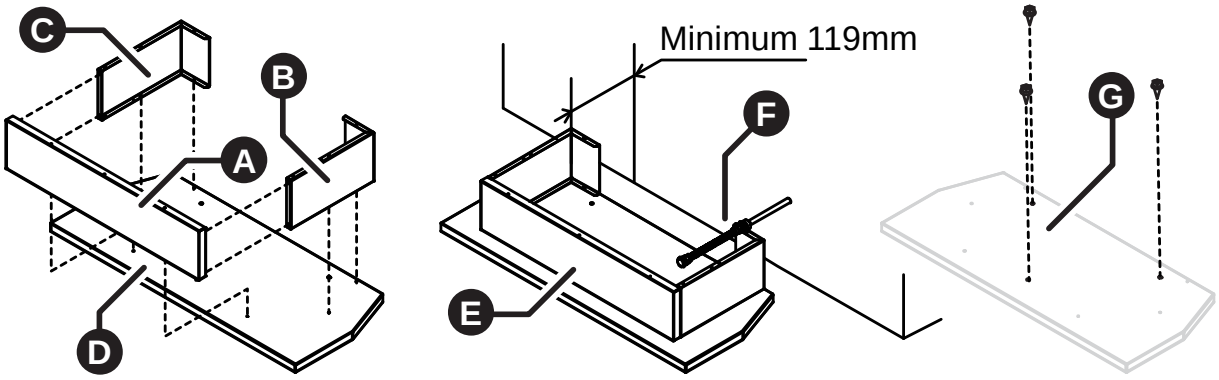
The heater engine and the console kit are supplied in separate cartons, check to ensure you have all contents as listed on "BEFORE YOU START" on page 1 at the start of this manual before proceeding.

For heater engine remove carton by removing the straps and carefully lifting the carton off the appliance. Remove all packaging materials and check all components for damage. If **ANY** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice.

Retain the card board carton for use in the "Attach Spigot Adaptor & Panels To Heater Engine" on page 37.

Before installing the heater, check it is labelled for the correct gas type, (refer to the gas type label on the top body panel of the heater engine). Refer to the local gas authority for confirmation of gas type if you are in doubt.

Step 3. Assemble & Secure Plinth Assembly



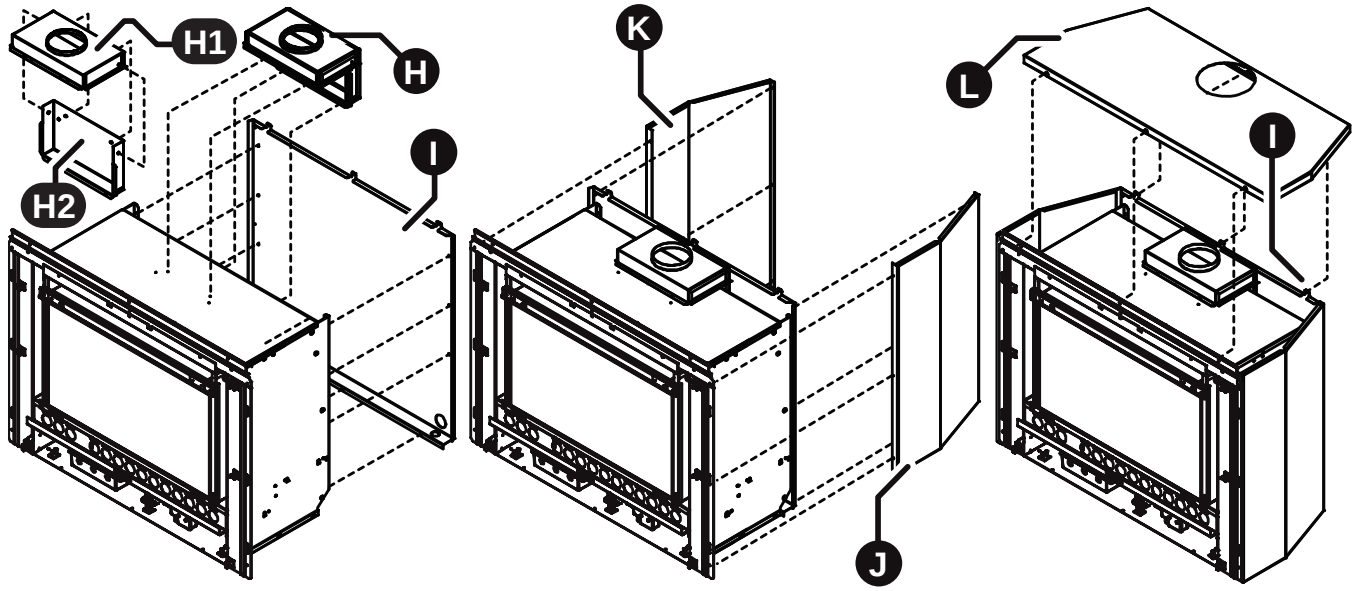
Assemble the pillar assembly A, B and C to the base panel D using the 10 - 8g x 10mm self taping screws supplied creating base assembly E.

A panel from the cardboard packing carton placed on the floor underneath the heater engine and console components will help prevent possible damage to flooring during assembly.

Confirm the correct gas supply position F and locate the base assembly E in the selected installation position and fasten to the floor using appropriate fasteners (not supplied) through the three holes in the base plate G.

HEATER ENGINE INSTALLATION - PLINTH

Step 4. Attach Spigot Adaptor & Panels To Heater Engine



Assemble the the spigot adaptor halves H1 and H2, secure together with 4 x screws (supplied).

Drill 4 x Ø 3.2mm holes in the pre pressed location dimples on the top and back of the heater engine, then fit the flue spigot adaptor H to the heater engine top and rear panels using 4 - 8g x 10mm self tapping screws (supplied).

Fit the rear panel I using 9 - 8g x 10mm self tapping screws (supplied).

Fit side Panels J and K to heater body at the front and the rear panel using 12 - 8g x 10mm self tapping screws (supplied).

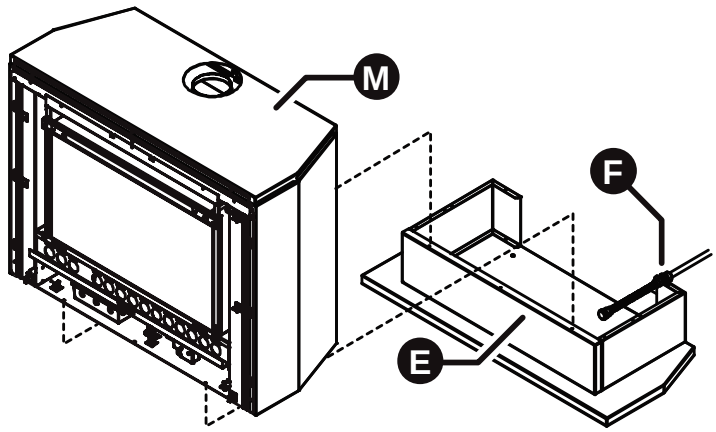
Carefully align top panel L over tabs of the rear panel I, fasten to the heater at the front using 3 - M5 x 12mm screws (supplied) and at the rear using 3 - 8g x 10mm self tapping screws (supplied).

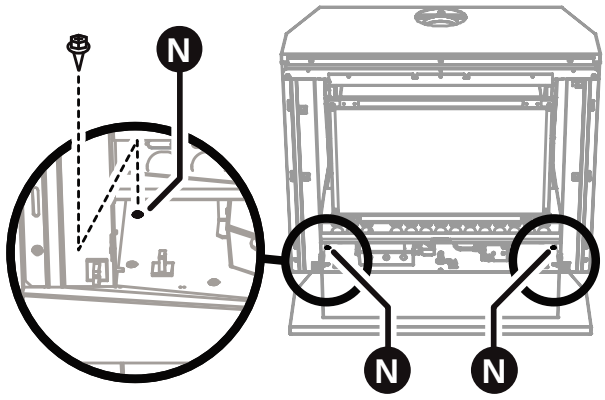
Step 5. Prepare Gas Supply

Remove the threaded brass plug from the S/S flexi pipe consumer gas supply pipe.

Step 6. Fit Heater Engine To Plinth Assembly

WARNING **The following installation step requires a two man lift. Seek assistance before proceeding further.**





Carefully lift the heater engine assembly M onto the plinth assembly E ensuring that the gas supply pipe and fittings F feed into the rear access hole.

CAUTION **Take care that the electrical cord does not bunch up or get pinched behind the heater engine.**

Align the heater securing holes over the M5 root nuts, then secure using the 4 - M5 x 12mm screws supplied. Note that two screws are located midway into the appliance on the lower left and right edges, refer to detail N above.

HEATER ENGINE INSTALLATION - PLINTH

Step 7. Connect Electrical Supply

Plug in 3 pin connector, if a general purpose outlet (power point) is used.

Step 8. Connecting Gas

Firmly grasp the S/S flexi pipe (F) and bend at 90° approximately mid way to line up with the gas control valve inlet (O) then attach pipe to gas control valve and tighten.

Step 9. Leak Testing

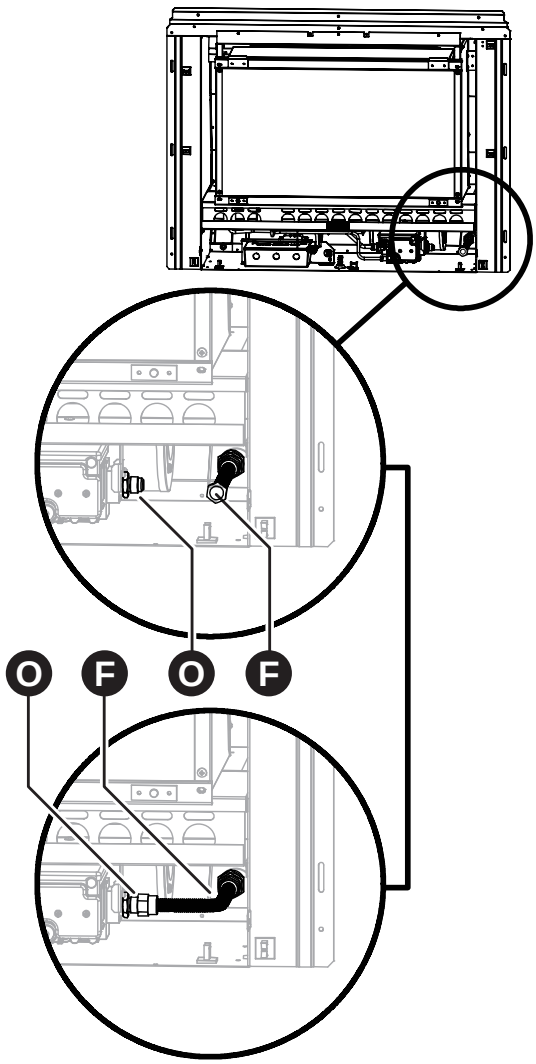
Turn gas back ON and leak test appliance connection.

CAUTION

Use a soapy solution to test all gas connections. If a leak is present bubbles will form at the leak point. when finished remove any residue with a rag. Prevent any soapy solution from coming in contact with electrical components.

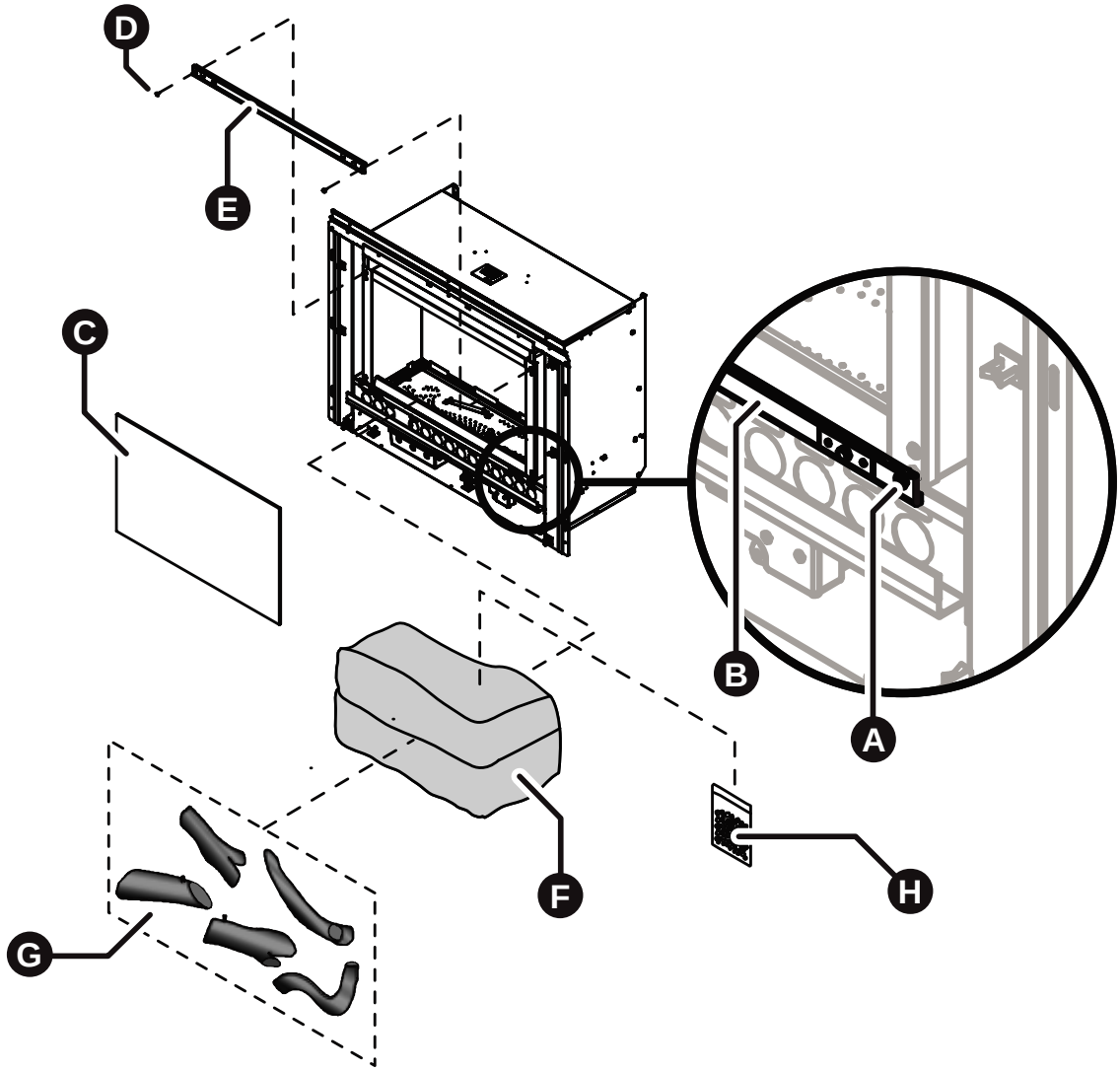
Step 10. Completing Heater Installation

Go to “COMPLETING HEATER INSTALLATION” on page 42.



COMPLETING HEATER INSTALLATION

PREPARING FOR COMMISSIONING



Step 1. Removing the Burner Box Glass

Loosen but do not remove the two retaining screws (A) for the bottom burner box glass clamp (B). While supporting the burner box glass panel in place, completely unscrew and remove the two retaining screws (D) and the top burner box glass clamp (E). Then lift burner box glass panel (C) away and place it safely aside where it can not get damaged.

Step 2. Unpacking Log Set & Granules Satchel

There are two items shipped inside the burner box of the heater engine, these are the log set (G) and the burner granules (H). These items are now accessible for removal.

IMPORTANT **The satchel containing the burner granules (H) is taped to the outside of the foam packing that contains the log set. Ensure that you locate and remove the satchel before discarding the packaging material.**

Carefully unpack the five logs (G) from the packaging material (F) and inspect each log for damage, temporarily return logs to the packaging (F) for safe keeping. After inspection place the logs and the burner granules satchel (H) safely aside where they can not get damaged. If **ANY** damage is evident on the logs **DO NOT** continue with installation and contact your supplier for advice.

COMPLETING HEATER INSTALLATION

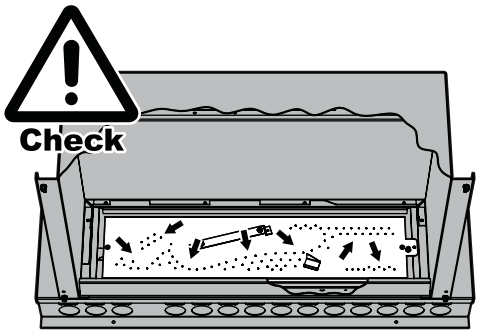
Step 3. Installing the Log Set and Burner Granules

NOTE

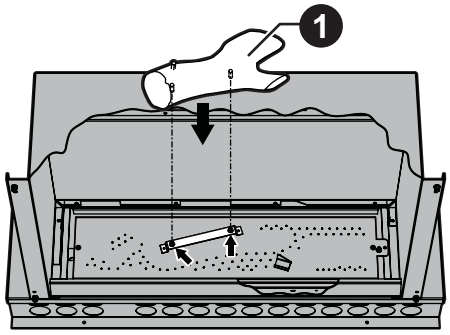
For clarity the drawings are displayed without showing the entire heater.

DO NOT remove the burner from heater engine to install the log set.

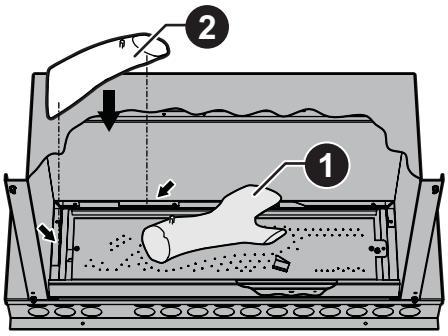
Use extreme care when handling the Log Set components, they are made from a very fragile high temperature material and will damage if handled roughly. Only remove the components from their packaging as required.



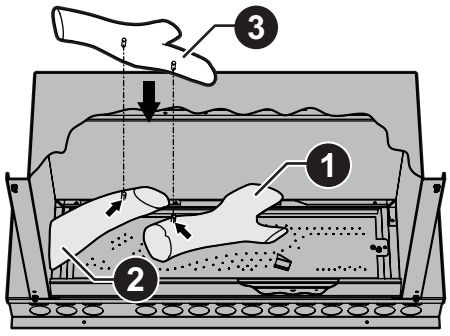
⚠ Check to ensure that the ports of the main burner are clean and clear of any particles and all packaging material. The log set **MUST BE** installed in the precise order as stated.



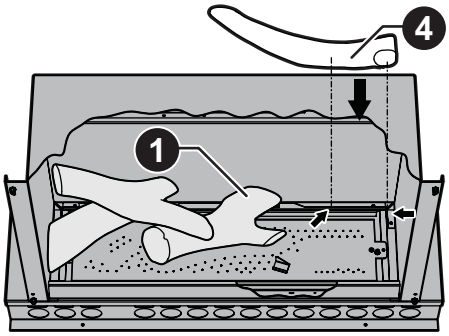
Log ❶. Select the thicker 'Y' shaped log and fit into position by lining up two pin holes onto the two pins of the locating bracket that is fixed to the centre of the main burner.



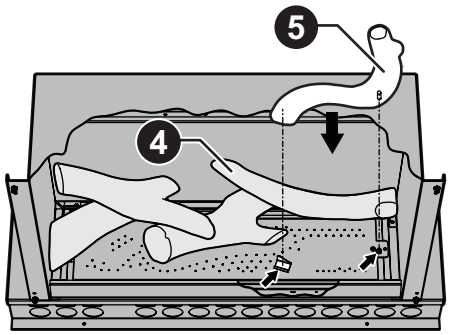
Log ❷. Select the thick straight log and fit onto the sheet metal locators at base of the left side and rear panels. When correctly located this log will be touching the burner box walls.



Log ❸. Select the thinner 'Y' shaped log and fit into position by lining up two pin holes onto the two pins of the first two logs. Ensure this log is seated all the way down until it touches logs ❶ and ❷.

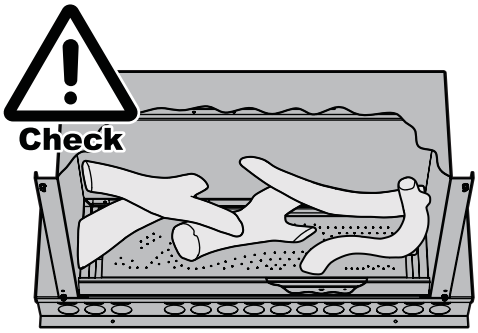


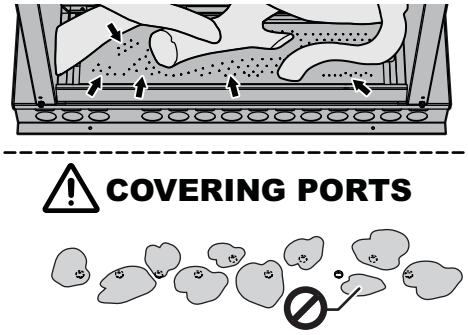
Log ❹. Select the longest log and fit onto the sheet metal locators at base of the right side and rear panels. When correctly located this log will be touching the burner box walls and be lightly resting on log ❶.



Log ❺. Locate the final bowed log onto the sheet metal locator at the base of the right side panel and the bracket fixed to the main burner, lean the log back until it rests on piece number ❹.

COMPLETING HEATER INSTALLATION





⚠ Confirm the correct location of all the logs before proceeding with the placement of the granular burner medium, ensuring that all the logs are firmly seated in their correct positions and that the ports of the main burner are clean and clear of any debris that may have been shed during the log installation.

For best flame effect carefully place the granular burner medium over and around the front burner ports. It is desirable that the gas jet is diffused by the granules, this will reduce any 'candling' effect of the flame enhancing the realistic log burning look of the heater.

⚠ **DO NOT** force any granular material into the burner ports or completely block any of the burner ports.

Step 4. Replacing the Burner Box Glass

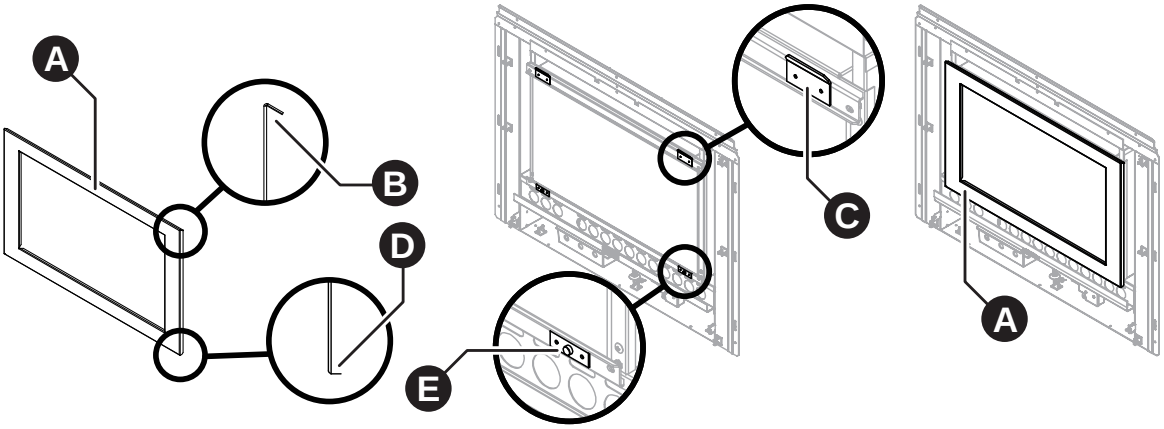
Replace burner box glass panel assembly in reverse sequence as instructed in Step 2. page 42.

Step 5. Unpack the Fascia Assembly & Inner Frame

The Fascia Assembly and the Inner Frame are supplied in a separate carton, check to ensure you have all the contents as listed on “CARTON CONTENTS / ITEM CHECKLIST” on page 1 at the start of this manual before proceeding. Remove all packaging materials and check all components for damage. If **ANY** damage is evident **DO NOT** install or operate this appliance. Contact your supplier for advice.

NOTE **When placing the standard facia assembly down ensure it is placed on its lower edge or flat. If it is placed on its left or right edge the glass may slide out of the stand off posts. If this should occur ensure that the silicon rubber mounts are not dislodged when sliding the glass back into position.**

Step 6. Fitting the Inner Frame

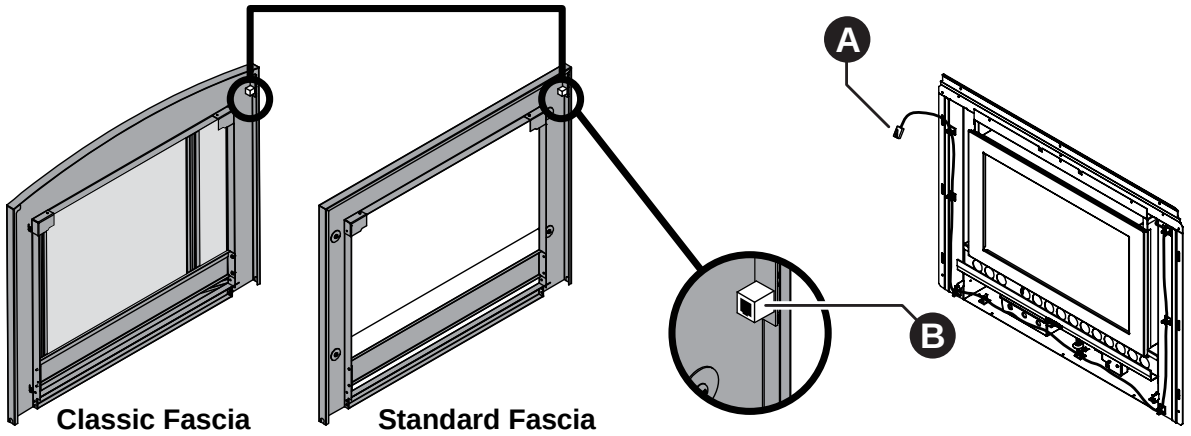


The inner frame **A** is packed with the Fascia and can now be fitted to the heater engine. The inner frame is held in position by return tabs **B** on the top edge and by magnets **C** on the bottom edge.

Fit the inner frame **A** to the heater engine by locating the over-folded edge **B** over the two return tabs **C** then gently swing down the bottom edge **D** onto the magnets **E**.

COMPLETING HEATER INSTALLATION

Step 7. Connect the Push Button Control Panel



Carefully pick up fascia assembly, taking care not to tilt the standard model fascia on it's edge as the glass may slide out from the stand off posts.

Position the fascia close to the heater engine and connect the RJ45 plug **A** into the socket **B** located on the back of fascia on the top left hand corner, (this connects the push button control panel via a communications cable to the heater engine's control box).

Step 8. Switch On the Electricity Supply

Switch on the electricity supply, the appliance is now ready for commissioning.

WARNING

240 VOLTS, RISK OF ELECTRICAL SHOCK!

When performing the commissioning, the appliance electrical power will need to be connected. Exercise CAUTION as there is potential for electric shock from the exposed wiring and circuitry. DO NOT leave the appliance unattended when power is connected and the panels are removed.

Installation and commissioning must be carried out by an Authorised person.

Wiring inside this appliance may be at 240V potential.

DO NOT test for gas escapes with an open flame.

COMPLETING HEATER INSTALLATION

COMMISSIONING THE APPLIANCE

WARNING

The gas type codes and gas pressures for this appliance *MUST BE* checked and set in accordance with these instructions when the appliance is installed, *OR* after the replacement of any component or reassembly after service.

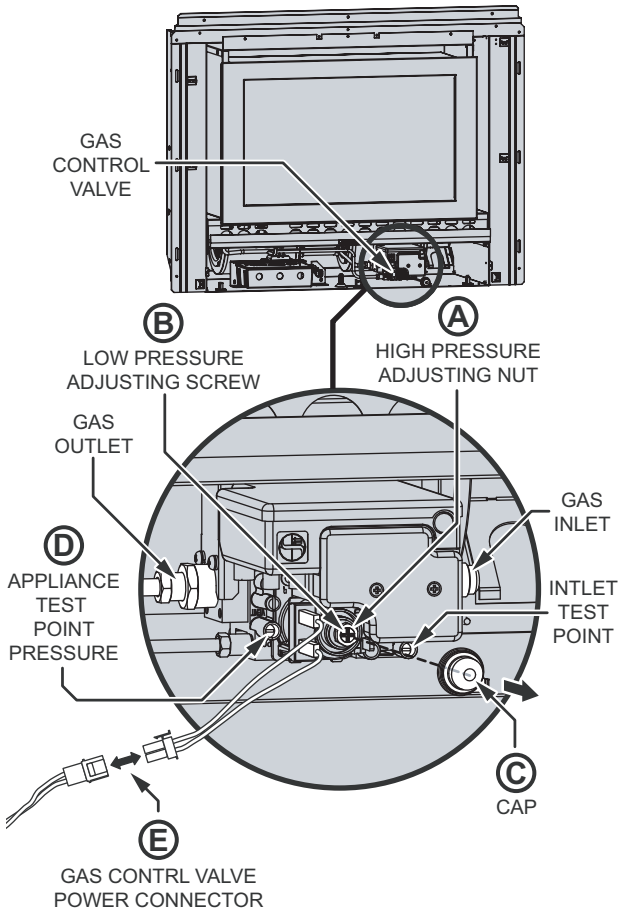
Step 9. To check and set burner pressures:

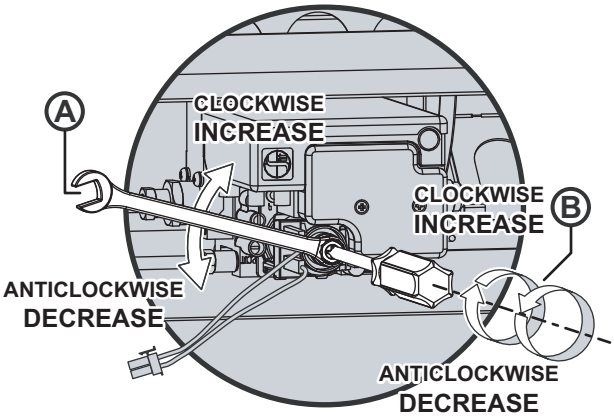
1. Refer to the data plate located on the front left panel of the heater engine for correct gas pressure settings.
2. Using a suitable screw driver loosen the captive Appliance Test Point Pressure screw (ATPP) Ⓓ and fit the manometer, (an electronic manometer is recommended). Refer images for ATPP location.
3. Remove the dust cap Ⓒ from the regulator adjusting nut Ⓐ and screw Ⓑ.
4. High Pressure Setting:
   Turn the appliance 'ON' and set the heater to the highest setting, see “TO TURN YOUR HEATER ON” on page 9. Using an appropriate screw driver hold the low pressure adjusting screw Ⓑ stationary while adjusting the high pressure setting, nut Ⓐ with a 10 mm spanner. Turning the nut clockwise will increase the outlet pressure whilst turning the nut anti-clockwise will decrease the outlet pressure.
5. Low Pressure Setting:
   Disconnect the power to the Gas Control Valve (GCV) by separating the connector Ⓔ for the power supply (yellow wires). The GCV will automatically default to 'Low Pressure' operation. Using a 10 mm spanner hold the high pressure adjusting nut Ⓐ stationary while adjusting the low pressure setting, screw Ⓑ with an appropriate screw driver. Turning the screw clockwise will increase the outlet pressure whilst turning the screw anti-clockwise will decrease the outlet pressure.
6. Replace the dust cap Ⓒ after pressure adjustments.

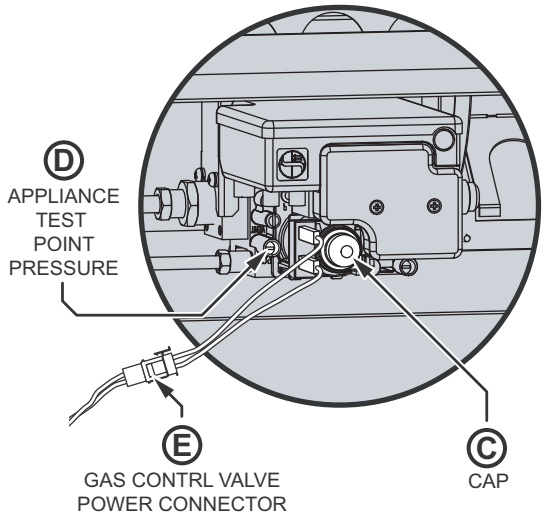
WARNING

To ensure the correct operation of the GCV it is necessary that the dust cap Ⓒ is returned to its original location.

7. Reconnect the power to the GCV by rejoining the connector Ⓔ (yellow wires).
8. After confirming the correct pressures, turn the appliance 'OFF', remove manometer and tighten the ATPP sealing screw Ⓓ and leak test.
9. Turn the appliance 'ON' and 'OFF' a few times to confirm correct ignition and operation.
10. During the initial burn in period, some smoke and smell may be emitted. The appliance should be run on the high setting in a well ventilated room until these dissipate.
11. Check the flame pattern, see '“ABNORMAL FLAME PATTERN” on page 48.



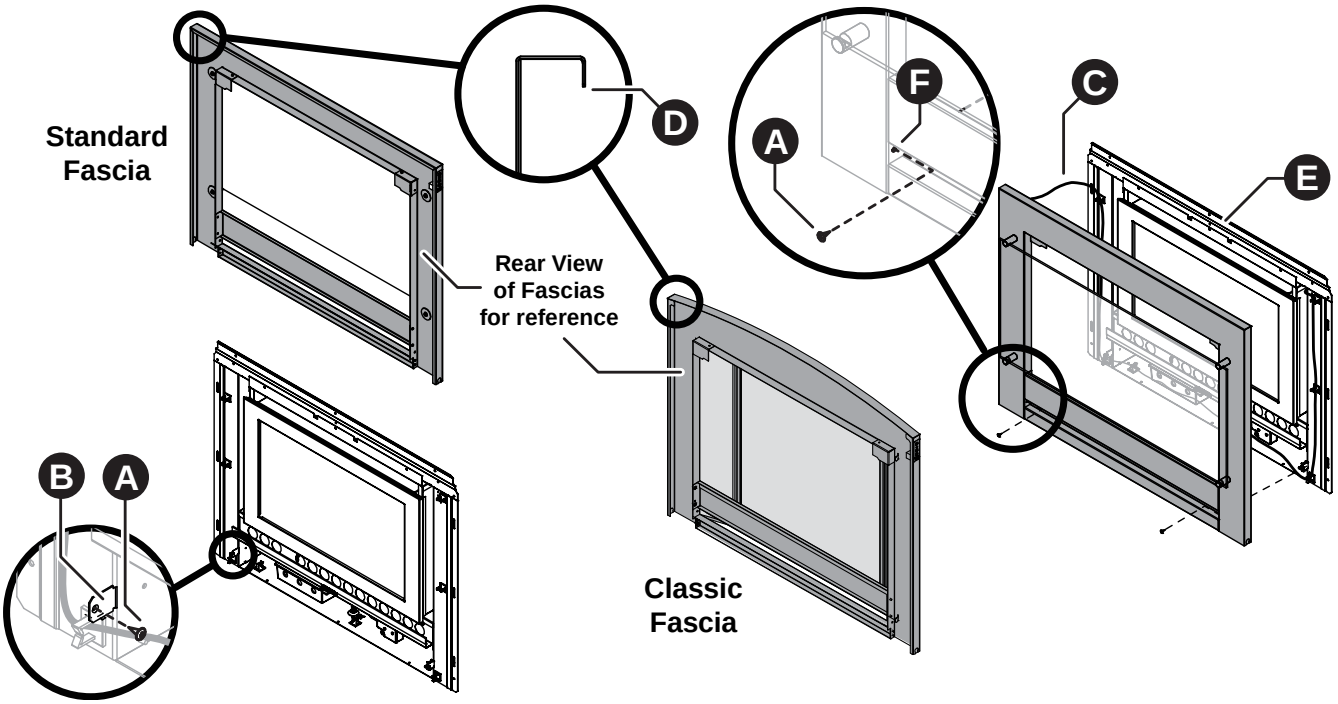




COMPLETING HEATER INSTALLATION

ATTACHING FASCIA ASSEMBLY

Step 12. Attach the Fascia to the Heater Engine



Locate and remove the two 8g - 10mm fascia assembly securing screws **A** pre-positioned in the fascia mounting tabs **B** on the heater engine body.

NOTE **These screws have been pre-inserted by the manufacturer to ensure correct threading of the fascia securing tabs.**

Carefully pick up fascia assembly, taking care not to tilt the standard model fascia on it's edge as the glass may slide out from the stand off posts.

Position the top fold **D** over the fascia assembly mounting panel **E** and gently push the lower edge of the fascia assembly until it is flush at the edges.

NOTE **Ensure you DO NOT place excessive tension on or pinch the communication cable C when manoeuvring the fascia into position.**

Fit and tighten the two fascia retaining screws **A** through both the fascia **F** and the fascia mounting tabs **B** on the heater engine body.

NOTE **The glass dress guard (standard model) and the mesh dress guard (classic model) fitted to this appliance reduces the risk of fire and injury and no part of it should be permanently removed.**

For protection of young children or the infirm a secondary guard is required.

WARNING **If the heater is not operating correctly refer to the "TROUBLE SHOOTING CHECKLIST" on page 20 before contacting Rinnai.**

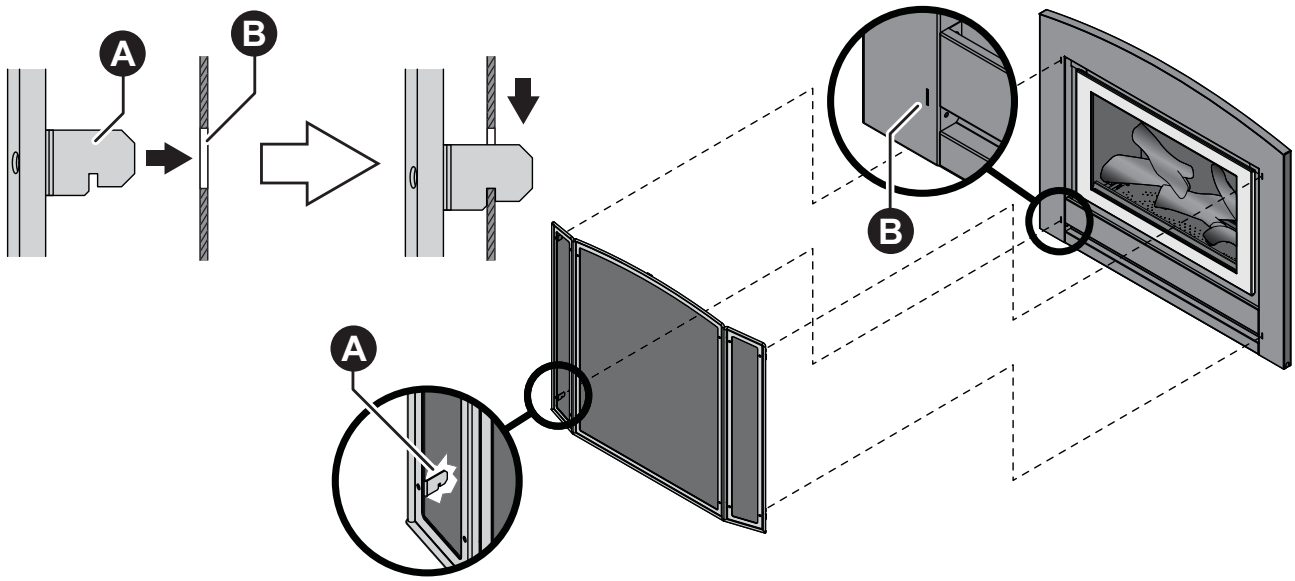
It is the responsibility of the installer to check that under normal operating conditions of the appliance, all flue gases are exhausted to the outside atmosphere and that there is no spillage of combustion gases into the room. Please refer to AS 5601.

During the initial burning in period of approximately 2 hours, some smoke and smell may be experienced. During this period the heater should be operated on High and the space being heated should be well ventilated. It may take up to 20 minutes of operation for the logs to achieve their full flame pattern and glow.

Burner aerations are factory set and can not be adjusted. If you are unable to get the unit to operate correctly refer to "TROUBLE SHOOTING CHECKLIST" on page 20 before contacting Rinnai.

COMPLETING HEATER INSTALLATION

ATTACHING DRESS GUARD TO CLASSIC FASCIA ASSEMBLY



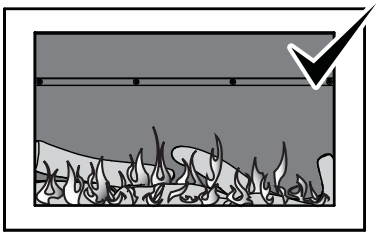
The mesh dress guard of the classic model fascia is held in place by four slotted tabs (two on each side) **A** which lock into four slots **B** on the front of the fascia.

ABNORMAL FLAME PATTERN

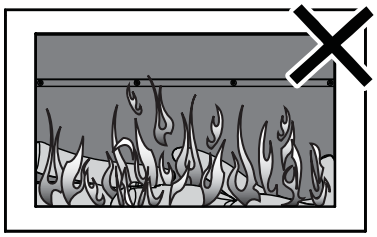
Each Rinnai Flame Fire heater has a distinct flame pattern. The flame should look the same every time you start your heater, after an initial warm up period of approximately 15 minutes.

Abnormal flame performance and/or pattern can indicate a problem with your heater, such as blocked gas injectors, incorrectly installed / inadequate flue system or the artificial logs/burn media may have shifted from when the heater was first installed.

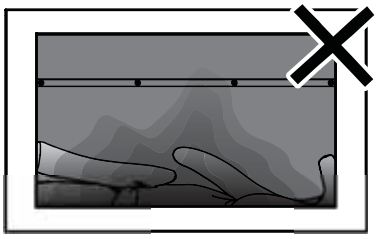
There are some warning signs that could indicate a problem. If any of the signs below occur, please contact Rinnai.



NORMAL FLAME PATTERN



ABNORMAL FLAME PATTERN



SOOT BUILD UP

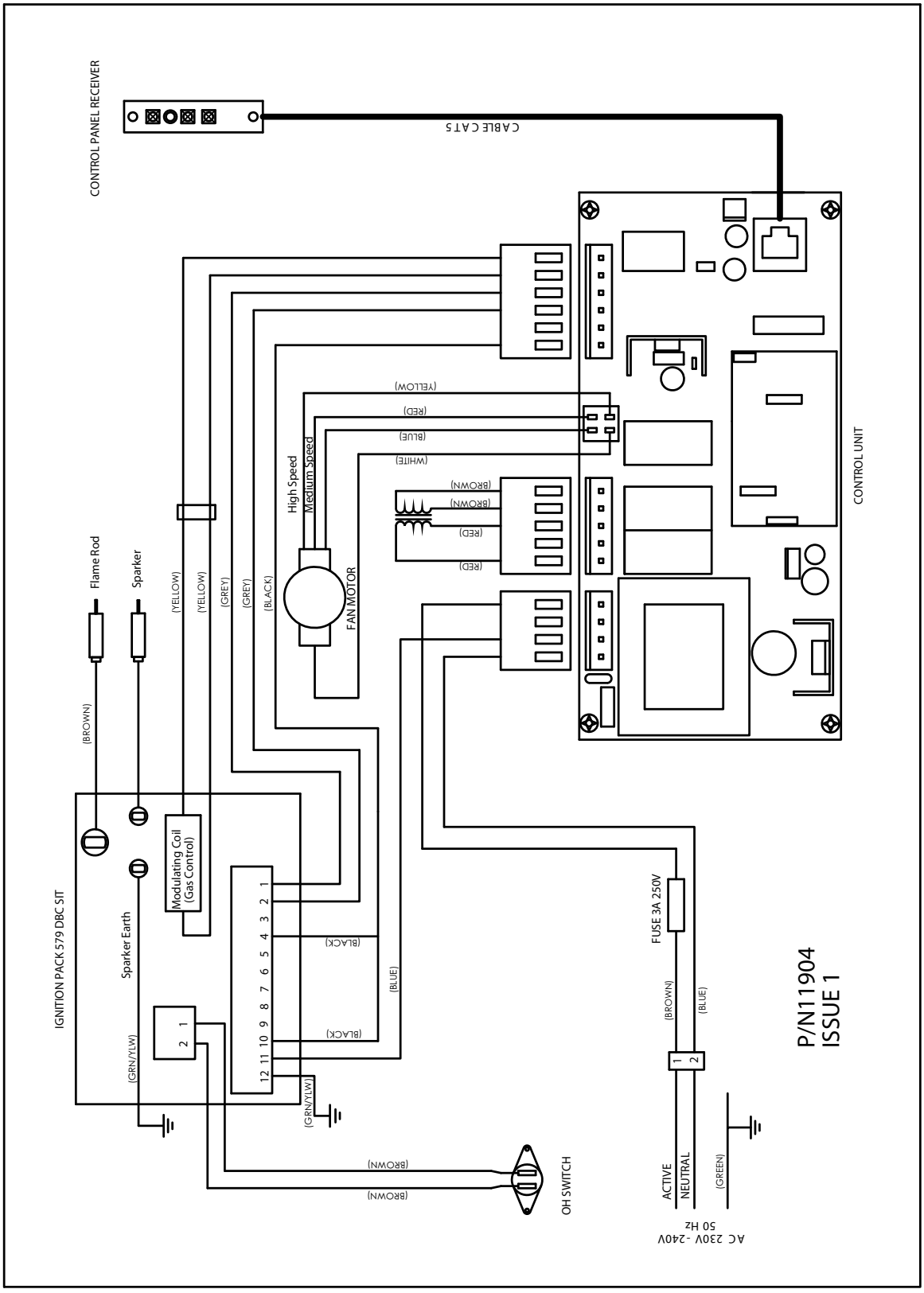
Key signs of abnormal flame performance:

- Appliance turns ‘OFF’ soon after start up and does not relight.
- Flame appears overly orange-yellow.
- Flame appears either very short or very long.
- Flame only burns part way across the burner.
- Severe soot building up on the inside of the glass and logs.
- Continuous unusual smell from the appliance.
- Continued difficulty or delay in establishing a flame.

NOTE

Be advised that appliances incorporating a live fuel effect, and designed to operate with luminous flames, may exhibit slight carbon deposition, this is normal operation.

WIRING DIAGRAM



CHECKLIST

INSTALLATION AND COMMISSIONING CHECKLIST

- Complete the Installation Check List and the Installer details below.
- Instruct customer on the Sapphire operation.
- Ensure the customer understands the content of this manual.

NOTE

Advise the customer that during the initial burning period of approximately 2 hours, some smoke and odour may be experienced. During this period the heater should be operated on 'High' and the space being heated should be well ventilated. It may take up to 20 minutes of operation for the logs to achieve their full flame pattern and glow.

WARNING

The glass dress guard (standard model) and the mesh dress guard (classic model) fitted to this appliance reduces the risk of fire and injury and no part of it should be permanently removed.

- For protection of young children or the infirm a secondary guard is required.
- Ensure this Operation and Installation manual is left with the customer.

WARNING

Ensure the Customer understands that:

No part of this appliance should be permanently removed.

Paper or other material must not be burnt in this appliance.

Young children and the infirm should be supervised at all times.

Checklist To Be Completed By Certified Gas Installer

	NO	YES
1. Is the appliance positioned in a suitable location (clearances, combustible clearances, mantels and surrounds etc)?	☐	☐
2. Was a Rinnai approved flue system installed and tested in accordance with the instructions?	☐	☐
3. Has the gas pressure checked and set?	☐	☐
4. Has the log set / burn media been installed as per instructions?	☐	☐
5. Was the appliance tested for correct operation and to ensure no gas leaks?	☐	☐
6. Has the customer been instructed on operating procedure and safety requirements?	☐	☐
7. Is the end-user fully aware of operating procedure?	☐	☐
8. Has the Dress Guard been fitted?	☐	☐
9. Has the customer been advised not to remove the dress-guard?	☐	☐
10. Has the customer been advised to service the heater every two years?	☐	☐

NOTES

NOTES

Rinnai

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Cost of a local call Higher from mobile or public phones.

Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our Help Line. Rinnai recommends that this appliance be serviced every 2 years.